

# **Bluephage is a biotechnology company specializing in microbiological water analysis to ensure safe water for a better world**

## **THE COMPANY**

[Bluephage](#) was born in 2016 at the [University of Barcelona](#) by researchers **Joan Jofre**, **Francisco Lucena**, and **Anicet Blanch**, from the [Health-Related Water Microbiology Research Group \(MARS\)](#) at the University of Barcelona, and with the leadership of **Enric Queralt**, a water entrepreneur, as CEO of Bluephage.

The company was born as a **spin-off to promote and commercialize a technology based on a patent developed at MARS, which reduces the result time of the water's microbial analysis to only 6 hours.**

For more than three decades, the MARS group studies coliphages as indicators of microbiological quality water, and this work has been the basis for creating the company Bluephage. Therefore, the start-up aims to develop and **commercialize water microbiological parameter testing kits and provide learning services and advice to their customers.**

**Increasing and improving microbiological control of water, food, and biosolids through a viral indicator is imperative to ensure the population's health.**

Bluephage focuses on becoming a leader in the viral indicator market by providing easy-to-use, fast, simple, reliable, and cost-effective kits for coliphage testing, ensuring safe water for a better world.

Bluephage is committed to its vision of ***Safe Water for a Better World*** and mission to help millions of people worldwide get safe water for drinking and agricultural uses. **The company wants to reinforce these social, economic, and environmental sustainability objectives with B Corp certification received in March 2021.**

Bluephage received the **2020 Innovation Award** as a small and medium-sized enterprise (SME) awarded by **Water Europe** as part of Water Innovation Week. Water Europe is the European Technology Platform for water initiated by the European Commission.

In February 2021, Bluephage was recognized with the **Senén Vilaró Award** as the best innovative company of the year, thanks to its **disruptive and cutting-edge technology** developed to detect coliphages.

## THE CONTEXT

In an international context where more than **2.5 billion people do not have access to safe drinking water**, Bluephage assumes the social responsibility to offer a cost-effective and accessible solution to water analysis laboratories, water supply and sanitation companies, as well as health and water authorities. **In alignment with the United Nations Sustainable Development Goal number six** - "Ensure availability and sustainable management of water and sanitation for all-", Bluephage's vision and purpose is to help thousands of people obtain safe water for drinking, agriculture and sanitation proposes.

In 2017, the **World Health Organization (WHO)** launched the fourth edition of the **Guidelines for Drinking Water Quality**. The chapter on Water Safety Plans recommends using more resistant indicators, such as coliphages, for microbial water quality testing and practicing more frequent water testing for fecal indicator organisms to detect contamination and prevent waterborne diseases.

In early 2021, the **European Commission** adopted a new **Drinking Water Directive** that requires **testing for coliphages as a viral indicator for water** because, when present, other viruses can occur in the environment but at lower concentrations. So, monitoring through this viral indicator can prevent some diseases related to human viruses. In light of this reality, **Bluephage's mission is to market a revolutionary method to simplify and speed up detecting and enumerated coliphages in water.**

Since 2016 Bluephage works to positively impact the prevention of a global crisis related to the water industry, and **2021, the company achieved B Corporation certification**. This certification recognizes and reinforces the company's mission, vision, values, and the way of relating to all its stakeholders and supply chain and ensuring this commitment to its customers.

## THE TEAM

To achieve its social, environmental and business development objectives, Bluephage leverages its most valuable resource: **the knowledge and experience of the people who make up the team.**

**Eric Queralt, CEO of Bluephage**, maintains open communication with all stakeholders and the supply chain, involving them in the company's purpose and sharing its values so that everyone identifies with them and works in alignment with the company's mission.

The team of researchers is formed of world-renowned experts in basic and applied microbiology and virology in water testing methods, able to draw on more than 35 years of knowledge and experience. The team also comprises young professionals who bring a new vision and a new stimulus to scientific research.

This way of working enhances training and commitment to knowledge transfer, fostering development opportunities for future scientists.

## **THE PRODUCTS**

Bluephage's innovation is about simplifying and accelerating the coliphage enumeration process.

According to ISO and US-EPA international standardized methods, the company offers easy and fast kits to shorten the coliphage detection and enumeration process to six hours.

The company currently markets two types of kits:

1. ISO 10705-1 and ISO 10705-2, which specify a method for the detection and quantification of somatic and F-specific coliphages, respectively. Bluephage's product portfolio consists of an all-in-one kit, prepared biological material, and powdered media to save time and resources for coliphage enumeration according to ISO methods.
2. US-EPA 1642 and US-EPA 1643 are methods for detecting and quantifying somatic and F-specific coliphages in 100 ml of sample. The Bluephage product portfolio consists of an all-in-one kit and prepared biological material media to save time and resources for coliphage enumeration according to U.S. EPA methods.

In 2021 Bluephage will revolutionize the water testing market with an innovative approach to water quality monitoring: rapid kits, a completely new system for coliphage enumeration. The development of these rapid kits is the culmination of decades of research and experience in microbiology and, to simplify, improve and reduce the detection time of coliphages.

The BLUEPHAGE Rapid Kit provides results comparable to ISO and US-EPA methods while simplifying and accelerating the process for detecting and enumerating coliphages, making it the closest possible technique to real-time monitoring. This process can be completed in one working day.

## **STAKEHOLDERS**

The manufacturing and distribution process involves collaboration with external companies, enabling Bluephage to activate other economic sectors. They are part of the supply chain, and the company also conveys and shares with them its will to contribute to the social development of the planet through its economic activity.

Bluephage offers training and consulting services to communicate and teach the products' performance that meets international standards' quality requirements.

All these actions, from research and product development in the laboratories to disseminating knowledge through the communication channels, pursue social, economic, and environmental development objectives.