



Redberry announces unprecedented results on microbiological controls of drinking waters

Illkirch, France (12/10/2019) - Redberry, announced today that they have met unprecedented results in the field of drinking water analysis with their new Rapid Microbiological analysis platform, Red One™.

This level of correlation with regulatory methods has never been reached before on drinking water tests

First application of Red One™ is water microbiological testing.

In the field of drinking water, there has been many attempts to correlate the results of rapid detection methods (eg. delivering results within a few minutes such as ATP-metry or flow cytometry) with regulatory methods (based on culture). They often led to failure¹. Therefore, these methods are unsuitable for a proper enforcement of regulatory requirements. They have only been applied for qualitative analysis up to now.

A first comparative study has been led by Redberry on water samples from Paris and Strasbourg areas. It assessed the correlation between the number of microorganisms detected by Red One™ within 10 minutes and the number of microorganisms counted on a Petri dish after several days of culture. This study showed a level of correlation never reached before ($R^2 > 0.80$), in conditions where other methods show low correlation level ($R^2 \sim 0.35$)¹.

Monitoring the staining kinetics enables to reach a unique level of performance in the market of drinking water controls

Fully automated, Red One™ detects single cells by using advanced image treatment techniques. The patented system tracks and analyzes the assimilation of staining agents by the targeted cells ("staining kinetics"). This analysis is performed real time and enables to differentiate targeted cells from background (typically inert particles) with a very high level of reliability on the first targeted applications.

"For drinking water, the staining kinetics makes us go one step further." indicates Dr. Joseph Pierquin, Founder and CTO of Redberry.

"We showed our ability to predict with high certainty the number of cultivable cells among a large number of viable cells (up to 10^5 cells/mL). This result is unprecedented, from what we know. The assumption we draw is that staining kinetics is correlated to membrane integrity of the cells hence to their ability to grow. The obtained results tend to confirm it."

Results obtained on Total Viable Count (TVC) application will be published first half of 2020. In the first quarter of next year, Redberry will complete the development of its specific test for detecting Escherichia Coli in 10 minutes in swimming water and 3 hours in drinking water.

¹ Berney, M. et al., Rapid, cultivation-independent assessment of microbial viability in drinking water, Water Research (2008), doi:10.1016/j.watres.2008.07.017



Very easy-to-use, Red One™ delivers rapid and reliable results - Commercial launch expected in 2020

“After selling our first units to early adopters, we will commercialize Red One™ for water tests in the first half of 2020. We are currently discussing with major worldwide water companies.” says Jonathan Macron, CEO.

In addition to precision and reliability of its analysis, Redberry wants to ease the controls. *“We optimised both compacity and ergonomics: once you have dropped the sample on the cap, you can close the drawer and everything is automated.”* explains Macron.

Foreseen applications for Red One™ are not limited to waters. *“First results obtained on food and cosmetics samples are similar to what we observed on water. We are working on the next steps.”* concludes Macron.

About Redberry SAS

Redberry is a private company specialized in instrumentation and devices for Life Sciences and Health, located in the East of France (Strasbourg area).

The team of 7 persons develops and commercialises a new set of fully automated devices for Rapid Microbiology applications. First equipment available is Red One™.

In October 2019, Red One™ won the “Janus de la Santé”, the award for Healthcare innovative products from the French Institute for Design.

More information available on www.redberry.net

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