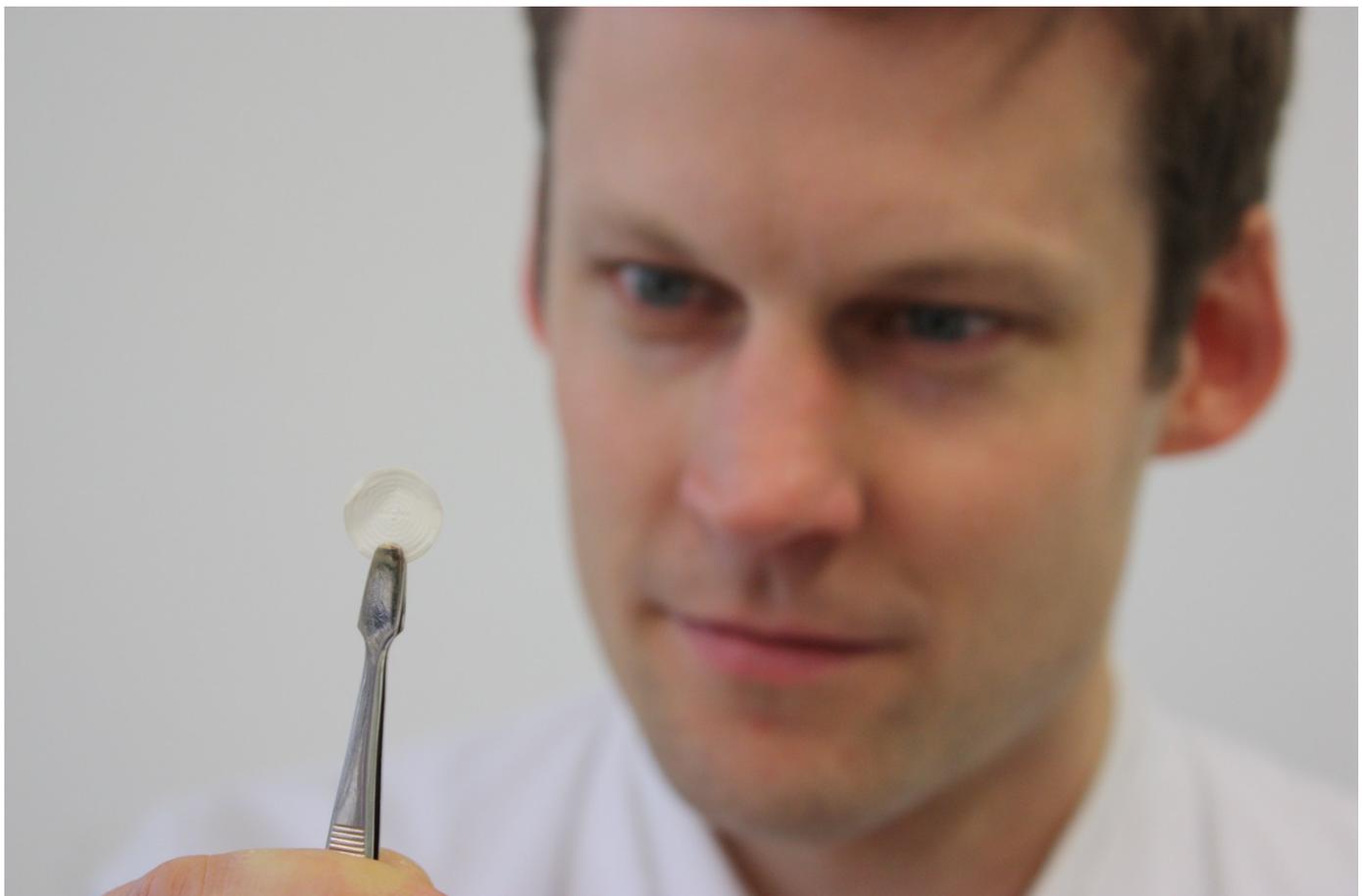


Testing water quality - Test kit makes in situ testing easy

Moisture and warmth create the ideal living conditions for a wide range of micro-organisms which can pose a risk to human health. Now, a new quick testing kit for bacteria means that the microbiological contamination of water or other surfaces can be measured directly in situ, with no need for expensive and time-consuming laboratory tests.



In future, it will be possible to test the hygiene status of industrial and process water and surfaces quickly and cheaply, in situ, thanks to the newly developed quick test kit.

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Experts from the Institute for Hygiene and Biotechnology (IHB) at the Hohenstein Institute in Bönningheim have developed the innovative test kit as part of a research project (AIF no. 16067N/1) and proved its validity in practical use. In order particularly to be able to detect those bacteria

which form what is called a biofilm at the interface between water and solid surfaces, the scientists developed a test method based on antibodies, similar to those which are already successfully used in pregnancy testing.

The quick test is especially suitable for establishing whether there is hazardous contamination caused by enterobacteria, which include EHEC pathogens, or pseudomonads in swimming pools, steam baths, saunas and other systems using a water supply. These bacteria can cause serious intestinal illnesses, infections of wounds or the respiratory system and heart complaints, especially in people with a weakened immune system. The quick test method is also of interest for checking industrial or process water and surfaces in food-processing plants, the food retailing and catering industries, healthcare institutions and commercial laundries. Similarly, in the case of ventilation (RLT) and other air conditioning systems, the quick test provides information within a few hours showing whether the microbial count is above the critical limit of 100 CFU/ml (colony forming units per millilitre) and appropriate counter-measures must be taken. The test is so simple that it can be carried out safely and quickly even by non-specialists. With conventional laboratory tests, the microbiological analysis is usually only available after a few days, i.e. too late to take hygienic measures immediately in order to eliminate the risks to staff, customers or guests reliably.

Project leader Gregor Hohn sees many other potential areas of use for the test system in future: "We are currently working on making the quick test kit non-temperature-dependent, so that it can also be used in hot parts of the world without a cold chain process. That is where the need for on-the-spot hygiene tests is particularly great, because of the lack of laboratory facilities. We can also envisage modifying the test kit for use with other types of bacteria such as legionella or fungi." The test kit for carrying out five separate tests, including detailed instructions, can be ordered at a price of EUR 99 from ihb@hohenstein.de. To complement this test, the experts at the IHB also offer customised consultancy services and standardised laboratory testing in the field of hygiene management, for a wide range of industries.

Further Information:

Rose-Marie Riedl
Hohenstein Institute
Tel.: +49 (0)7143/ 271 - 723

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