

Blue biotechnology

A completely new concept in biotechnology has been evolved by a team of scientists at Aberdeen University, the United Kingdom. Using this technology Remedios, a commercial spin-off company from the University, has developed a simple glow-test biosensor to determine whether a site is contaminated and the best way to clean it up. The novel biotechnology revolves around harnessing the potential of certain bioluminescent micro-organisms that produce luminescence in sea water at night. According to researchers, they can visually identify toxin levels in soil or water within minutes. In this process, modified bacteria are mixed with a sample to produce a bright-blue luminous glow to indicate health. A dull glow indicates the presence and level of toxins.

Portable test equipment can also provide quick visual checks on the purity of water anywhere in the world. The test is of special interest to armed forces in the field, health workers in developing countries and as a check on sewage works intake and industrial discharge to rivers. The glow test is considered to have huge commercial potential in the field of detecting and cleaning up industrial sites for which it has been primarily developed.

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