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BIOTEC to collaborate with Japanese research body on microbial community

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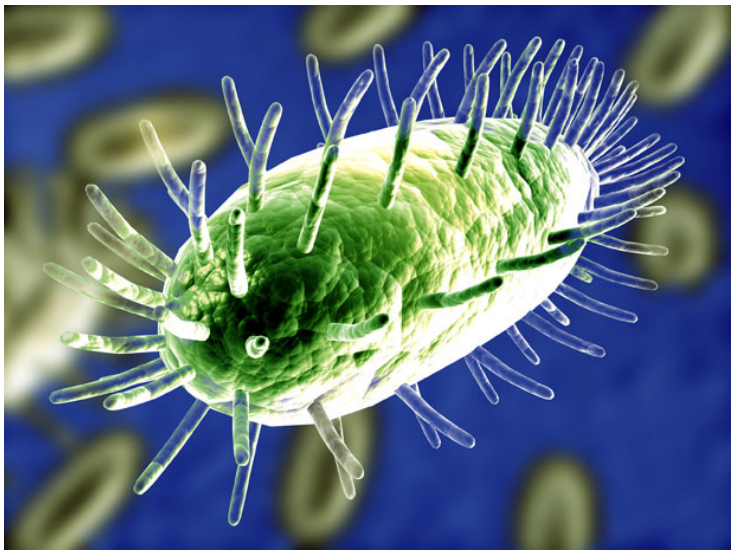
BIOTEC to collaborate with Japan's NITE on microbial community



Singapore: Thailand's National Center for Genetic Engineering and Biotechnology (BIOTEC) and the National Institute of Technology and Evaluation (NITE), a Japanese research organization, have started a joint project to assess microbial community structures in flood-affected river sediment and its capability on degradation of polycyclic aromatic hydrocarbon (PAH). The goal is to search for microorganisms for bioremediation application.

Last year, Thailand's northern and central region was heavily inundated after heavy rains. The crisis resulted in massive deposition of organic matters and toxic substances in the affected areas which led to remarkable alteration in microbial ecology. "This project will focus on surveying the distribution of PAH degrading bacteria in sediments from the two flooded affected rivers, particularly at Chao Praya River and Tha Jin River deltas where intensive sediment deposition was found," said Dr Verawat Champreda, researcher of bioresources technology unit, BIOTEC project leader.

Dr Nobuyuki Fujita, director general for genomics and biosafety of NITE Biological Resource Center, added that "the result of this survey will indicate the potential of indigenous microbes on PAH degradation under both natural and stimulated conditions".

Active microbial consortia degrading PAHs and active microbial isolates from the project will be deposited at both BIOTEC Culture Collection and NITE Biological Resource Center for future use in bioremediation and other biotechnological application.

This one-year project is funded by J-RAPID program, established in early 2012 as a collaboration between the National Science and Technology Development Agency and Japan Science and Technology Agency. J-RAPID supports fast track research and innovation related to unanticipated situation such as natural disasters which need to be executed immediately.