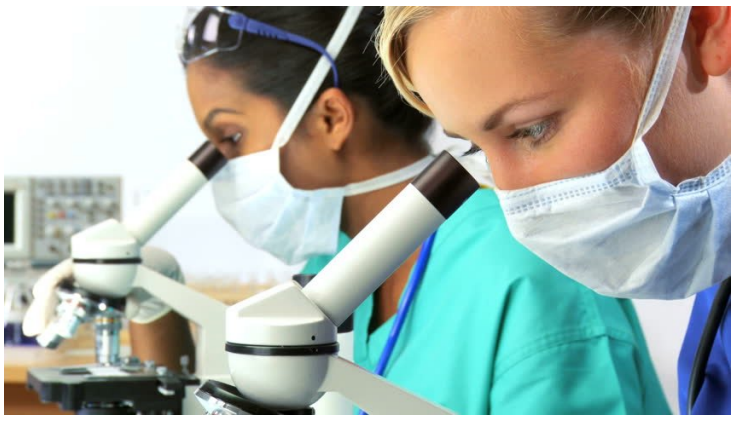
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Researchers develop sensitive diagnostic test for TB meningitis

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The diagnostic test is based on a derivative of a DNA aptamer that is a small single-stranded DNA molecule that binds to a specific target molecule and is a chemical rival of antibodies.



A team of researchers from All India Institute of Medical Sciences (AIIMS), New Delhi and Translational Health Science and Technology Institute (THSTI), Faridabad has developed a diagnostic test for TB meningitis with nearly 100 per cent sensitivity and about 91 per cent specificity.

The diagnostic test is based on a derivative of a DNA aptamer that is a small single-stranded DNA molecule that binds to a specific target molecule and is a chemical rival of antibodies. The derivative shows high binding affinity in nanomolar range and high specificity to a TB antigen (HspX). Besides higher binding affinity, there is significantly higher load of the HspX antigen in cerebrospinal fluid samples, leading to higher sensitivity.

The aptamer-based diagnostic test for TB meningitis has been patented by AIIMS and THSTI and licensed to AptaBharat Innovation Pvt Limited, a THSTI spinoff founded by Dr. Tarun Kumar Sharma, Centre for Biodesign and Diagnostics at THSTI.