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Yale University creates new device for TB diagnosis

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A group of engineers at Yale University in the US have teamed with UK-based biotech firm QuantuMDx Group to develop a handheld device for the quick diagnosis of tuberculosis (TB).

The device is able to allow easy treatment of the condition by identifying the TB cells even before they become infectious.

It works on a phenomenon called dielectrophoresis that uses an attracting or repelling force to separate the cells in the absence of a charge.

The sample with the TB cells receives a voltage to isolate the cells once it starts flowing through a chip present on the device. The cells are then trapped using frequency-dependent phenomena.

QuantuMDx has already developed multiple prototypes that are currently being evaluated to obtain evidence for supporting the commercialisation of the device.

The team is currently working on refining the technology to ensure accuracy and intend to make the device portable to facilitate its use even in resource-poor areas.