

DBT -BIRAC supports a new technology to beat antimicrobial resistance

New Delhi, Oct 01: Antimicrobial resistance (AMR) has emerged as one of the greatest challenges of the 21st century with India at the epicentre. With 5million ICU patients being treated in India every year and even more being admitted to hospitals, antimicrobial stewardship efforts and improving access to rapid diagnostics are vital to avert a crisis.



In alignment with the same, Grand Challenges India supported OmiX Research and Diagnostics Laboratories Pvt. Ltd for the development of the platform to strengthen surveillance and improved testing of AMR. The OmiX provides molecular detection of sepsis, respiratory infections, neuro infections and antibiotic resistance detection based on its platform technology.

The OmiX iAMP platform is based on novel, proprietary, isothermal, room- temperature stable amplification reagents, robotics for extraction and assay setup and analytics to manage, track and analyze all samples. With minimal sample handling, minimally trained manpower requirement and low risk of contamination, the OmiX platform is taking molecular diagnosis out of special-purpose molecular laboratories to the near point of care.

The OmiX iAMP platform has been specifically designed as a rapid point of care test to detect and track AMR in low-resource settings in a cost-effective manner. The system provides a substitution for real-time PCR based closed systems used in the diagnosis of

infections as molecular tests based on 10X more sensitive isothermal amplification than RT-PCR.

The innovativeness of this platform lies in the fact that through robotic sample processing software; sample tracking is possible from receipt to result. This technology is certainly a turning point for fast detection of infections and antibiotic resistance.

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