

Infection Control, Monitoring and Information Systems based on Ion Mobility Spectrometry

(ASB-IMS²)

The problem against Multi Drug Resistant Organisms and thereby Hospital Acquired Infections can be solved only through early and accurate detection of these microbes and preventing their further spread. An integral solution for the above will improve the quality of healthcare in hospitals, reduce the costs and operational impact from these infections, improve targeted medicine thereby reducing the mortality rate due to these superbugs. Four companies from Germany, namely; ION-GAS GmbH, Meta IT GmbH, Logic Way GmbH and UCEF GmbH have partnered in this ANTISUPERBUGS PCP challenge aiming to develop and provide a comprehensive solution in tackling these Superbugs. The Anti-Superbugs: Infection Control, Monitoring and Information Systems based on Ion Mobility Spectrometry (ASB-IMS²) aims to address the three paramount superbugs, namely; *Klebsiella Pneumoniae*, *Clostridium difficile* and *Staphylococcus aureus* (MRSA) through rapid, non-invasive and accurate detection and identification based on ultra-sensitive ion mobility spectrometry. This breath-based identification will also be extendable to wounds and fomite region analysis. State-of-the art, smart technology will be implemented in aiming to prevent further spread of these HAIs by promoting and improving hand hygiene amongst Hospital staff and patients. An integration of the above two solutions for rapid non-invasive detection & identification and prevention of further spread will be achieved by a modern Infection Prevention Surveillance System (IPSS) that will cumulatively provide continuous reporting, prevention of spread and prompt intervention. This multi-faceted ASB-IMS² solution will create a positive impact and advancement in Point of Care systems and targeted medication in eliminating these Superbugs.

