IIIT-Delhi in collaboration with CHRI-PATH, Tata 1mg and ICMR, Secures Second Prize at the Trinity Challenge on Antimicrobial Resistance

New Delhi, June 2024: The Trinity Challenge has announced the winners of its second competition (the Trinity Challenge on Antimicrobial Resistance), aimed at tackling the escalating threat of antimicrobial resistance (AMR). The awarded projects focus on addressing critical data gaps in communities and lower-income countries, which are disproportionately impacted by antibiotic-resistant infections.

IIIT-Delhi proudly announces that the project "AMRSense: Empowering Communities with a Proactive One Health Ecosystem," led by Prof. Tavpritesh Sethi in collaboration with CHRI-PATH, 1mg.com, and ICMR, has secured the joint second prize. The project shares this honor with "OASIS: OneHealth Antimicrobial Stewardship for Informal Health Systems," also from India. Each joint second prize winner will receive £600,000 in funding over the next three years. All winners will also benefit from ongoing post-award innovation and scaling support.

AMRSense addresses the challenges of engaging, motivating, and training community health workers (CHWs) in AMR surveillance and management, compounded by the lack of a comprehensive data ecosystem and analytics capabilities. In India, where over 900,000 ASHA workers face limited awareness, insufficient training, and low motivation, there is a significant gap in community-level AMR data collection and evidence-based management. AMRSense tackles these issues through four major components: community engagement by empowering CHWs with AI-assisted data recording tools for accurate and simplified data collection; data integration by creating a unified AMR data ecosystem through the integration of antibiotic sales, consumption, and WHONet-compliant surveillance data using open-source tools and APIs; predictive analytics by using federated analytics across the OneHealth ecosystem for integrative insights on AMR; and the AMRaura Scorecard for monitoring and evaluating AMR trends to guide targeted interventions and demonstrate the benefits of data collection.

Speaking on the occasion of the ceremony, Professor Dame Sally Davies, Chair, the Trinity Challenge and UK Special Envoy on Antimicrobial Resistance, said: "The vision and hard work of our winners has been inspiring. They each show that everyone can make a difference and be part of the solution to the antibiotic emergency; no one has the whole answer but we can each still act. For example, with their plans to create a new platform for farmers to access diagnosis and treatment advice for their animals, our grand prize winner is focussing on the food chain, and yet creating a powerful solution that can generate data to fill our knowledge gaps and inform decision-makers."

Upon receiving the award, Prof. Sethi remarked, "This is a tremendous encouragement for the team. We are an interdisciplinary team looking forward to solving this grand challenge together. Collaboration is at the heart of our solution and the Trinity Challenge award is a catalyst for making it possible.

"We have been building data-driven evidence for antimicrobial resistance in the hospital settings for the last seven years, but only the Trinity Challenge fully enabled us to extend our approach into the community settings. Our team has been engaging with the Indian Council of Medical Research's AMR surveillance networks. Now with the engagement of CHRI as an affiliate of PATH serving as an implementation partner, and India's largest online pharmacy, Tata 1mg as the private sector collaborator, we are integrating all components to effectively address the challenges of AMR by creating a comprehensive One Health ecosystem."

Professor Marc Mendelson, Director, the Trinity Challenge, said: "In order to protect the power of antibiotics now and in the future, we decided to focus this Challenge on a major gap in data at the community level, across One Health, and in low- and middle- income countries where the burden of bacterial infections is highest. As a One Health Challenge, I am delighted that our winners have solutions to mitigate antibiotic resistance and improve our understanding in both human and animal health. I am excited to work with these teams as their innovations come to life."

About Antimicrobial Resistance

It is predicted that by 2050 antimicrobial resistance (AMR) will result in 10 million additional deaths a year if strategies are not implemented now to counter this threat. The speed at which antibiotic resistance is growing is a direct response to misuse and overuse of antibiotics across our healthcare systems and the food industry. The situation with respect to antibiotic resistance in bacteria has developed to the point that it now threatens our health, food, environment and global security.

About The Trinity Challenge

The Trinity Challenge (TTC) is a charity supporting the creation of data-driven solutions to help protect against global health threats.

We believe data and analytics hold the key to building effective, affordable, and scalable solutions to current and future pandemics and health emergencies, and we are committed to working with governments, individuals and organisations across the world, to help improve our resilience against current and future threats to global health.

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