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Singapore: Singapore based Curiox Biosystems has collaborated with Agency for Science, Technology and Research (A*STAR) to validate the Curiox Biosystems DropArray system, a novel technology developed to make immunomonitoring more cost-efficient.

Curiox has collaborated with Singapore Immunology Network (SIgN) to implement DropArray system on institute's clinical immunomonitoring platform to validate the utility of the technology in Luminex assays. Luminex assays use color-coded beads to multiplex up to 500 unique bioassays within a single sample, enabling scientists to simultaneously measure multiple analytes.

Dr Anis Larbi, principal investigator and Dr Brian Abel of Clinical Immunomonitoring Platform at SIgN, has tested the DropArray system, which shows a 5-fold miniaturization of Luminex assays with respect to expensive assay reagent volumes and clinical sample usage. The team at SIgN has also been executing their clinical assays on the system, achieving 65 percent savings in overall assay costs as well as reducing the usage of valuable clinical samples.

The second collaboration with A*STAR is with Dr Frederic Bard, senior principal investigator, A*STAR's Institute of Molecular and Cellular Biology (IMCB). Dr Bard's laboratory has established a genome-wide RNAi screening programme, focused on membrane trafficking regulation, Golgi organization, and Golgi signaling to control protein glycosylation in health and diseases. His team has been optimizing the DropArray system for RNA transfection with suspension cells.

"The DropArray system will benefit our research dramatically. We frequently perform multiplexing assays on the Platform and the data quality obtained with the DropArray system on the Luminex has been excellent", Prof Laurent Renia, executive director, SIgN said. "The strikingly reduced cost and sample requirements for the DropArray system have enabled us to generate much more data with significant cost savings for the Platform, and consequently for our collaborators."

Dr Namyong Kim, CEO, Curiox Biosystems, has been managing these collaborations. "We are very pleased with the outcome of the research collaborations we have formed with A*STAR. Our DropArray technology expands the utility of multiplex analysis by enabling analytes to be screened in as little as 10ul well. The results from these collaborations demonstrate that

the DropArray system is a critical next-generation tool for the expanded adoption of bead-based assays. We are proud to offer this cost-effective alternative to the market."