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India’s first microfluidic platform for fast-track preclinical development of mRNA vaccines

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Fully automated operation with single use and multi use microfluidic chip

Mumbai-based firm Amar Equipment launched 'NanoMake', India's first microfluidic platform for fast-track preclinical development of mRNA vaccines and nano-formulations, at Institute of Chemical Technology's "Biosimilar Workshop", one of the largest gatherings of biopharmaceutical researchers in India, held on 2nd and 3rd February 2023, in Goa.

Formulating nanomedicine is one of the major challenges towards translation. The in-vivo distribution, uptake, and clearance of nano particles are influenced by their size, making it a vital parameter to regulate. The formulation of nanomedicine normally possesses batch-to-batch variability by conventional methods, restricts translation and results in procedures that are difficult to scale from the discovery stage of a study through animal testing, clinical testing, and eventually commercial manufacturing.

Microfluidic technologies have been employed to formulate nanomedicine with better controllable physical characteristics.

Amar Equipment has deployed its patented technology for formulating nanoparticles with desirable features to solve the present issues associated with it. The NanoMake technology is a simple to use microfluidic platform designed to enable rapid optimisation and formulation of nanomedicine with optimal setup and training.