

## Particle Works Launches ALiS – an Automated and High-Throughput Platform for LNP Formulation Screening

UNITED KINGDOM, October 19, 2022 /EINPresswire.com/ -- Particle Works continues to pave the way for particle perfection with the highly anticipated launch of its second revolutionary platform, the Automated Library Synthesis (ALiS) System. This innovative platform enables automation and highthroughput screening of lipid nanoparticle (LNP) formulations and mRNA candidates in early-stage drug development.

Liposomes and lipid nanoparticles are becoming increasingly important in a wide range of industries, particularly pharmaceuticals, where they can be used as drug delivery vehicles or to encapsulate vaccines, including for COVID-19. The systems currently used for candidate screening in early-stage drug development require formulations to be changed manually and lack the necessary automation to



process large numbers of samples quickly. All that is set to change with the launch of the groundbreaking ALiS platform. Following on from the popular Automated Nanoparticle (ANP) System, ALiS fills a gap in the marketplace for customers wanting to significantly accelerate their formulation screening. It requires little to no manual intervention, increasing lab efficiency while retaining the consistency, monodispersity and high encapsulation efficiency that Particle Works' platforms guarantee.

The pioneering ALiS platform, based on microfluidic technology, features a number of unique benefits. Its dedicated software enables walk-away processing of up to 96 unique formulations

in a typical working day, aspirating from and dispensing into covered 96 well plates. Formulation specifications such as lipid ratios and reagent concentrations, as well as process parameters – including total flow rate and the flow rate ratio – can be varied from well to well, to quickly establish the ideal properties and responses for your application. The system also offers unparalleled flexibility for experimental design and has flexible control over collection volumes. Its Anti-dispersion Technology lets you work with smaller reagent volumes, maximizing the use of precious materials, minimizing evaporation, and allowing the collection of as little as 100 µl of reagent per experiment.

Gareth Bolitho, Commercial Manager at Particle Works, commented: "The days of labor-intensive screening work are over. This is groundbreaking technology for scientists working on nanoparticle formulation, developed in response to customer demand for automated, high-throughput screening, and has already been used to great effect at a major biotechnology company over the last 18 months. With accurate control, high encapsulation efficiency and consistent day-to-day performance, we are confident that ALiS will become the screening platform of choice for scientists working in drug discovery."

Discover more about the novel ALiS platform for LNP formulation screening at <u>www.particle-</u> <u>works.com</u>

## About Particle Works

Particle Works combines a strong heritage in engineering with nanoparticle knowledge, microfluidic expertise and in-house microfluidic chip fabrication. We design and manufacture state-of-the-art particle engineering platforms, paving the way to particle perfection.

Our technology is used in a wide range of applications, including the production of nanoparticlebased vaccines, medicines, and therapeutics. Recently spun out of the Dolomite Microfluidics brand, Particle Works was born as a dedicated and focused drug delivery brand. We have been at the forefront of this rapidly changing science, listening and adapting as our customers' needs have evolved. Our platforms enable scientists to formulate particles faster, ensuring they are ready for their next breakthrough and the scale up of discoveries.

Particle Works is part of Blacktrace Holdings Limited – a world leader in Productizing Science<sup>™</sup> – and is based in Royston (near Cambridge) UK. We have offices in the USA, Japan and Vietnam, and worldwide distributors offering technical assistance and support.

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