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June, 2021

## PRESENTATION AT RNA Therapeutics & Delivery US ONLINE -VIRTUAL- (JUNE 29-30)

NOF CORPORATION will present NOF DDS technology for mRNA delivery and vaccines at **RNA Therapeutics & Delivery US ONLINE** to be held from **June 29 to 30, 2021**.

Conference Website: <https://www.oxfordglobal.co.uk/formulation-delivery-series-us-virtual>

Free client passes are available. Please e-mail to [info@nofamerica.com](mailto:info@nofamerica.com)

**Presentation Title:** Rational Engineering of mRNA Lipid Nanoparticles for Increased Efficacy and Lower Toxicity

**Date:** June 30, 2021 at 9:40 – 10:00 EST (DAY 2, STREAM 1: RNA DRUG DELIVERY)

### Abstract:

mRNA has broad potential as a therapeutic agent and multiple current clinical efforts are focused on vaccination, protein replacement therapies, and gene editing. While much of the current clinical progress is due to advances in mRNA manufacturing and chemical modification, intracellular delivery remains a significant hurdle. Recently, lipid nanoparticles composed of ionizable lipids have emerged as a new class of delivery system but pose new challenges due to inflammatory responses and organ toxicity. At NOF, we developed an improved series of ionizable lipids, COATSOME® SS-Lipid, that contains multiple structural motifs to increase biodegradation. Studies on mRNA transfection efficiency and rodent toxicity have shown that biodegradation, among other properties, contributes significantly to improved tolerability and RNA expression levels. This presentation will provide a detailed examination of the barriers at cellular level to RNA delivery and the role of the innate immune system in mediating lipid toxicity. Finally, the future outlook for development of next generation LNP platforms will also be discussed.

Please contact our regional offices below for the detail of the presentation or if you have any questions about the contents of the presentation.

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