



Nforce toolbox: Seamless product development to Tech adaption

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Background: **Method:** **Results:** **Conclusion:** **Author:** Dr. Ashiquel Haque To the attention of 3rd RNA Horizons Conference - Munich Nforce toolbox :Seamless product development to Tech adaption Quantoom is a technology provider dedicated to reinventing RNA-based therapeutics and vaccines through its integrated Nforce toolbox, a comprehensive platform that streamlines RNA design, production, and formulation. The Nforce toolbox comprises three core technologies: Ncode, Ntensify, and Ncapsulate, each addressing a critical step in RNA development to accelerate asset creation and enable seamless technology adoption. Ncode is a next-generation algorithmic system that delivers highly optimized RNA sequences and antigen designs for both mRNA and self-amplifying RNA (saRNA) platforms. Leveraging advanced computational approaches, Ncode generates mosaic and neoantigen constructs engineered for high expression, enhanced stability, and improved manufacturability. By integrating sequence optimization with platform-specific requirements, Ncode enables the rapid design of differentiated, high-performance RNA candidates across vaccine and therapeutic applications. Ntensify is an automated in vitro transcription (IVT) synthesis platform built on a scalable “scaleout” production model. The system is available from research-scale (Micro) to GMP-compliant manufacturing scale (Midi Flex), ensuring continuity from early development to clinical production without the need for traditional technology transfer. This modular approach reduces development risk, shortens timelines, and facilitates efficient process standardization. Ncapsulate is a next-generation RNA formulation platform featuring a proprietary ionizable component designed to operate outside the conventional intellectual property landscape of ionizable lipids. It enables efficient RNA delivery while providing strategic freedom to operate. Through flexible service agreements, Quantoom partners with organizations to develop RNA assets that can lead to the adoption of Ntensify and Ncapsulate technologies within their own pipelines.