



Nanobiotix Announces New Preclinical Data Supporting Improved Systemic Bioavailability and Reduced Toxicity for LNP-Delivered DNA Immunotherapy After Pre-Treatment With Nanoprimer Technology

April 20, 2026 6:30 AM EDT

- Preclinical evaluation in mice assessed the potential of the Nanobiotix Nanoprimer to overcome common barriers faced by lipid nanoparticle (“LNP”)-delivered therapies related to rapid liver clearance
- Pre-treatment with Nanoprimer followed by administration of LNP-delivered recombinant DNA (“LNP-DNA”) designed for anti-tumor immunotherapy showed increased systemic bioavailability, reduced hepatic toxicity, and reduced cGAS-STING related inflammation compared to LNP-DNA administered without the Nanoprimer

Data presented at the 2026 Annual Meeting of the American Association for Cancer Research

PARIS and CAMBRIDGE, Mass., April 20, 2026 (GLOBE NEWSWIRE) -- [NANOBIOTIX](#) (Euronext: NANO - NASDAQ: NBTX - the “Company”), a late-clinical stage biotechnology company pioneering nanotherapeutic approaches to expand treatment possibilities for patients with cancer and other major diseases, today announced the presentation of new preclinical data evaluating its Nanoprimer platform in sequence with lipid nanoparticle-delivered recombinant DNA (“LNP-DNA”) at the 2026 Annual Meeting of the American Association for Cancer Research (AACR).

POSTER #6389: Maximizing systemic LNP-DNA delivery for cancer-activated expression of Immunotherapy agents using Nanoprimer technology

Background

A key limitation common to LNP-DNA is rapid hepatic clearance via the mononuclear phagocyte system (“MPS”), which can reduce systemic bioavailability and tumor accumulation, as well as increase hepatic toxicity. In addition, LNP-DNA may trigger transient acute inflammation through activation of the cGAS/STING pathway.

In this evaluation, LNP-DNA vehicles designed for anti-tumor immunotherapy were administered with or without Nanobiotix Nanoprimer pre-treatment in a mouse model. Nanoprimer is designed to transiently occupy hepatic clearance pathways such as MPS to increase bioavailability and target accumulation, while reducing hepatic toxicity. Both agents were administered intravenously (IV).

Key Observations

- Reduced hepatic exposure and toxicity:
 - Decreased liver uptake of LNP-DNA and improved hepatic tolerability
- Improved systemic bioavailability:
 - Increase in circulating levels of LNP-DNA
- Mitigation of inflammatory response:
 - Attenuated activation of cGAS-STING pathway downstream targets
- Potentially broad applicability across LNP designs:
 - Notably, these LNP-DNA formulations were specifically engineered for extrahepatic delivery, supporting the potential of the Nanoprimer to further optimize advanced delivery systems

Conclusions

- These data support further evaluation of Nanoprimer in sequence with innovative LNP-delivered therapies
- Advanced LNP systems designed for extrahepatic delivery could potentially be further

optimized to improve systemic bioavailability and reduce toxicity through sequencing with the Nanoprimer

"We continue our dual path approach to the development of our next-wave Nanoprimer platform in which we are both pursuing external collaborations with partners developing innovative therapeutic candidates that are challenged by liver accumulation, as well as our own proprietary internal pipeline," said Laurent Levy Nanobiotix Chief Executive Officer and Chairman of the Executive Board. "We are encouraged by these preclinical results, generated in collaboration with Earli, which further support our hypothesis that the Nanoprimer may improve therapeutic efficacy while mitigating toxicity when sequenced prior to the administration of advanced therapeutics such as LNP-DNA and an additional layer of proof of concept."

About NANOPRIMER

The Nanoprimer is an early-stage nanotherapeutic platform designed to disrupt the design and development of innovative therapeutics and improve outcomes for patients. The Nanoprimer potentially increases drug bioavailability or decreases unintended off-target effects in the liver, specifically hepatic toxicity. The platform is designed for use in combination with advanced therapeutics across multiple drug classes. The Nanoprimer is being developed through external collaborations and an internal proprietary pipeline.

Nanoprimer is an early-stage nanotherapeutic platform designed to unleash the potential of advanced therapeutics by addressing one of the most common structural limitations in modern medicine: liver uptake and extrahepatic delivery. As therapies become more complex—such as RNA, gene therapies, and advanced biologics—they are increasingly captured by the liver, limiting their ability to reach target tissues and reducing their effectiveness.

Nanoprimer transiently modulates this natural clearance, allowing more drug to circulate longer, reach its intended target, and reduce off-target liver exposure. This approach can both enhance the performance of existing therapies and unlock new therapeutic pathways that were previously not achievable.

Developed as a therapeutic companion platform, Nanobiotix is advancing this technology through strategic external collaborations alongside a proprietary internal pipeline of Nanoprimer-enabled assets.

About NANOBOTIX

Nanobiotix is a late-stage clinical biotechnology company pioneering disruptive, physics-based therapeutic approaches to revolutionize treatment outcomes for millions of patients; supported by people committed to making a difference for humanity. The Company's philosophy is rooted in the concept of pushing past the boundaries of what is known to expand possibilities for human life.

Incorporated in 2003, Nanobiotix is headquartered in Paris, France and is listed on Euronext Paris since 2012 and on the Nasdaq Global Select Market in New York City since December 2020. The Company has subsidiaries in Cambridge, Massachusetts (United States) amongst other locations.

Nanobiotix is the owner of more than 30 umbrella patents associated with three (3) nanotechnology platforms with applications in 1) oncology; 2) bioavailability and biodistribution; and 3) disorders of the central nervous system.

For more information about Nanobiotix, visit us at www.nanobiotix.com or follow us on LinkedIn and Twitter

Disclaimer

This press release contains "forward-looking" statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, including, but not limited to, statements regarding the use of proceeds therefrom, and the period of time through which the Company's anticipates its financial resources will be adequate to support operations. Words such as "expects", "intends", "can", "could", "may", "might", "plan", "potential", "should" and "will" or the negative of these and similar expressions are intended to identify forward-looking statements. These forward-looking statements which are based on the Company's management's current expectations and assumptions and on information currently available to management. These forward-looking statements involve known and unknown risks, uncertainties and other factors that could cause actual results to differ materially from those implied by the forward-looking statements, including risks related to Nanobiotix's business and financial performance, which include the risk that assumptions underlying the Company's cash runway projections are not realized. Further information on the risk factors that may affect company business and financial performance is included in Nanobiotix's Annual Report on Form 20-F filed with the SEC on March 31, 2026 under "Item 3.D. Risk Factors", in Nanobiotix's 2025 universal registration document filed with the AMF on March 31, 2026 under "chapter 1.5 Risk Factors", and subsequent filings Nanobiotix makes with the SEC and AMF from time to time, which are available on the SEC's website at www.sec.gov and on the AMF's website at www.amf.org. The forward-looking statements included in this press release speak only as of the date of this press release, and except as required by law, Nanobiotix assumes no obligation to update these forward-looking statements publicly.

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Attachment

- [2026-04-20 -- NBTX -- PreClin Nanoprimer Data @ AACR 2026 -- FINAL.pdf](#)