

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM 6-K**

**Report of Foreign Private Issuer  
Pursuant to Rule 13a-16 or 15d-16  
of the Securities Exchange Act of 1934**

**Date of Report: March 02, 2021**

**Commission File Number: 001-39777**

**Nanobiotix S.A.**  
**(Exact Name of Registrant as Specified in its Charter)**

**60 Rue de Wattignies  
75012 Paris, France  
(Address of principal executive office)**

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F  Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

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**EXHIBIT INDEX**

**Exhibit Title**

[99.1](#) [Press Release, dated March 02, 2021](#)

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## SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**NANOBIOTIX S.A.**  
(Registrant)

March 02, 2021

By: /s/ Philippe Mauberna  
Philippe Mauberna  
Chief Financial Officer

## NANOBIOTIX: Preclinical Data Presented at First AACR Virtual Special Conference on Radiation Science and Medicine Showed NBTXR3 Combo Overcomes Anti-PD-1 Resistance, Promotes Strong Abscopal Effect and Long-Term Anti-Cancer Memory

- Combo therapy including augmented anti-tumor response in both irradiated and unirradiated (abscopal) tumors, improving local and distant tumor control, and increasing survival rate
- Survivor mice were immune to re-injections of tumor cells, maintained significantly higher percentages of memory immune cells and stronger anti-tumor immune activities than control

*“Evaluation of NBTXR3 as a tumor-agnostic, combo-agnostic product candidate is instrumental to our aim of significantly improving treatment outcomes for millions of patients with cancer. Our early clinical data in several tumor types have support that the physical primary mode of action of NBTXR3 could be universal and potentially benefit patients with any tumor type where radiotherapy is part of the standard of care. Our prior pre-clinical and early data from our ongoing clinical I/O program have provided further support that the biological secondary immune priming effect of NBTXR3 could help patients overcome resistance to anti-PD-1. The data from this preclinical experiment suggest that we may be able to expand the application of NBTXR3 across checkpoint inhibitors, and long-term anti-tumor memory is an outcome we are eager to continue exploring.”* – Laurent Levy, CEO of Nanobiotix

PARIS & CAMBRIDGE, Mass.--(BUSINESS WIRE)--March 2, 2021--Regulatory News:

NANOBIOTIX (Euronext : NANO — NASDAQ: NBTX – the “**Company**”), a clinical-stage biotechnology company pioneering physics-based approaches to expand treatment possibilities for patients with cancer, today announced positive new preclinical data investigating first-in-class radioenhancer NBTXR3, which is being evaluated as a tumor-agnostic, combo-agnostic product candidate across several tumor types. The data is being shared via poster presentation at the first American Association of Cancer Research (AACR) Virtual Special Conference on Radiation Science and Medicine, held March 2-3, 2021, by researchers from the University of Texas MD Anderson Cancer Center (MD Anderson).

### PRECLINICAL DATA ON NBTXR3 COMBO

NBTXR3 is composed of sterile, functionalized, crystalline hafnium oxide nanoparticles that are delivered by intratumoral injection one time prior to radiotherapy (XRT). After activation by XRT, the product candidate has a physical primary mechanism of action through which a higher dose of radiation is delivered within the tumor, enhancing the tumor-killing effect of XRT without increasing the dose in surrounding healthy tissues. The subsequent biological secondary mechanism of action that we are evaluating is the potential activation of several immune pathways upon tumor cell destruction, generating adaptive immune response within the body.

NBTXR3 is being evaluated in an expansive global development plan both as a single agent activated by XRT and in combination with other anti-cancer therapies including chemotherapy and immune checkpoint inhibitors. This study examined NBTXR3 activated by XRT in combination with anti-PD-1 along with TIGIT and LAG3 inhibitors in an *in vivo* anti-PD-1 resistant mouse model (344SQR).

Key Findings Include:

- The combination therapy of NBTXR3 + XRT + anti-PD-1 + anti-LAG3 + anti-TIGIT (Combo therapy) significantly promoted the proliferation activity of CD8<sup>+</sup> T cells, improved local and distant tumor control, and increased survival rate
- The anti-tumor efficacy of the Combo therapy was heavily dependent on CD4<sup>+</sup> and CD8<sup>+</sup> T cells
- The survivor mice from the groups treated with the Combo therapy were immune to re-injections of tumor cells
- The survivor mice maintained significantly higher percentages of memory CD4<sup>+</sup> and CD8<sup>+</sup> T cells, as well as stronger anti-tumor immune activities than control
- The Combo therapy augmented anti-tumor response in both irradiated and unirradiated (abscopal) tumors

### POSTER PRESENTATION

- **Title:** Integration of anti-TIGIT and anti-LAG3 with NBTXR3-mediated Immunoradiation Therapy Improved Abscopal Effect and Induces Long-term Memory Against Cancer
- **Timing:** View on-demand starting at 9:30am EST on March 2, 2021 on Virtual Conference platform
- **Poster Number:** PO-040

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## About NBTXR3

NBTXR3 is a first-in-class radioenhancer composed of sterile, functionalized, crystalline hafnium oxide nanoparticles. The product candidate is designed to increase the radiotherapy energy deposit inside tumor cells through the nanoparticles' high atomic number core packaged in the space for interaction with ionizing radiation, and subsequently increase of tumor cell death when compared to radiotherapy alone—without adding toxicity to adjacent healthy tissues. NBTXR3 requires a single, intratumoral administration before the first radiotherapy treatment session, and has the ability to fit into current worldwide standards of radiation care. The primary physical mechanism of action of NBTXR3 activated by radiotherapy could be universal, making it potentially applicable across any solid tumor indication where radiotherapy is a part of standard of care including head and neck, lung, prostate, liver, colorectal, and esophageal cancers. The biological secondary mechanism of action of NBTXR3 activated by radiotherapy has been shown in preclinical studies to prime adaptive immune response, which would potentially bring a new dimension to cancer immunotherapies.

**About NANOBOTIX:** [www.nanobiotix.com](http://www.nanobiotix.com)

Incorporated in 2003, Nanobiotix is a clinical-stage biotechnology company pioneering physics-based approaches to expand treatment possibilities for patients with cancer and other major diseases.

The Nanobiotix philosophy is rooted in bringing highly effective, generalized solutions to address unmet medical needs and challenges.

The Company's first-in-class, proprietary lead technology, NBTXR3, is being evaluated in an expansive global development program both as a single agent activated by radiotherapy and in combination with other anti-cancer therapies including chemotherapy and immune checkpoint inhibitors.

Nanobiotix is listed on the regulated market of Euronext in Paris (Euronext: NANO / ISIN: FR0011341205; Bloomberg: NANO:FP) and on the Nasdaq Global Select Market (Nasdaq: NBTX). The Company's headquarters are in Paris, France, with a U.S. affiliate in Cambridge, MA, and European affiliates in France, Spain and Germany

## Disclaimer

*This press release contains certain "forward-looking" statements within the meaning of applicable securities laws, including the Private Securities Litigation Reform Act of 1995. Forward-looking statements may be identified by words such as "at this time," "anticipate," "believe," "expect," "intend," "on track," "plan," "scheduled," and "will," or the negative of these and similar expressions. These forward-looking statements, which are based on our management's current expectations and assumptions and on information currently available to management, include statements about the timing and progress of clinical trials, the timing of our presentation of data, the results of our preclinical studies and their potential implications. Such forward-looking statements are made in light of information currently available to us and based on assumptions that Nanobiotix considers to be reasonable. However, these forward-looking statements are subject to numerous risks and uncertainties, including with respect to the risk that subsequent studies and clinical trials may not generate favorable data notwithstanding positive preclinical result and the risks associated with the evolving nature of the duration and severity of the COVID-19 pandemic and governmental and regulatory measures implemented in response to it. Furthermore, many other important factors, including those described in our prospectus filed with the U.S. Securities and Exchange Commission on December 11, 2020 under the caption "Risk Factors" and those set forth in the universal registration document of Nanobiotix registered with the French Financial Markets Authority (Autorité des Marchés Financiers) under number R.20-010 on May 12, 2020 (a copy of which is available on [www.nanobiotix.com](http://www.nanobiotix.com)), as well as other known and unknown risks and uncertainties may adversely affect such forward-looking statements and cause our actual results, performance or achievements to be materially different from those expressed or implied by the forward-looking statements. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons why actual results could differ materially from those anticipated in the forward-looking statements, even if new information becomes available in the future.*

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