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 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of September 2023

Commission File Number: 001-39777

Nanobiotix S.A.

(Translation of registrant's name into English)

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 [X] Form 40-F []

On September 5, 2023, the Registrant issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

(c) Exhibit 99.1. Press release dated September 5, 2023

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)

Date: September 5, 2023

<u>/s/ Bart Van Rhijn</u> Bart Van Rhijn Chief Financial Officer

NANOBIOTIX Strengthens Global Development Capabilities With the Appointment of Veteran Industry Leader Dr. Louis Kayitalire as Chief Medical Officer

PARIS and CAMBRIDGE, Mass., Sept. 05, 2023 (GLOBE NEWSWIRE) -- NANOBIOTIX (Euronext: NANO – NASDAQ: NBTX – the "Company"), a late-clinical stage biotechnology company pioneering physics-based approaches to expand treatment possibilities for patients with cancer, today announced the appointment of Louis Kayitalire, MD, as chief medical officer. Dr. Kayitalire brings an exceptional biopharmaceutical industry track record with proven success in the research, development, registration, and commercialization of therapeutics in oncology.

"We are pleased to welcome Dr. Kayitalire to our executive leadership team at this pivotal moment for the development and commercialization of potential first-in-class radioenhancer NBTXR3," said Laurent Levy, Nanobiotix co-founder and chairman of the executive board. "Given the disruptive potential of our radioenhancer for millions of patients with cancer around the world, we are clear-eyed in our understanding that a truly novel product candidate requires the type of seasoned, innovative clinical stewardship on which Dr. Kayitalire has built his career. Dr. Kayitalire's clinical leadership and expertise in oncology are ideally suited to the task of bringing our ongoing programs to successful completion and helping to build the future of Nanobiotix."

Dr. Kayitalire's career in biopharmaceuticals and biotechnology, spanning nearly 25 years with a focus on oncology and immunooncology agents, features growth through the ranks of several major companies in Europe and the United States. Prior to Nanobiotix, Dr. Kayitalire served most recently as chief medical officer for F-star Biotechnology, a biotechnology company based in Cambridge UK and Cambridge US dedicated to immune-oncology with a platform of bi-specific monoclonal antibodies. He has also held leadership positions at Bristol-Myers Squibb, Celgene, and Eli Lilly, where he helped drive product registration for GEMZAR®, ALIMTA®, ERBITUX® and OPDIVO®.

"I have been honored to lead the development of effective therapeutic innovations for patients with cancer throughout my career and am excited by the practice-changing potential of NBTXR3 for those suffering from disease, their loved ones, and the practitioners fighting on their behalf in the clinic," said Dr. Kayitalire. "I look forward to working with the experts within our team, along with our collaborators, to bring NBTXR3 to registration in head and neck cancer and across solid tumor indications."

Dr. Kayitalire is a medical oncologist who completed his training in oncology and hematology at the Gustave-Roussy Cancer Center in Villejuif, France, where he served as a senior resident in adult solid tumors after receiving his medical degree from Butare University in Rwanda. In addition, Dr. Kayitalire served as Assistant Professor in Oncology at the Paris XI University of France. Dr. Kayitalire is an active member of the American Society of Clinical Oncology (ASCO), the American Association for Cancer Research (AACR), the Society for Immuno-oncology of Cancer (SITC) and the European Society of Medical Oncology (ESMO).

About NBTXR3

NBTXR3 is a novel, potentially first-in-class oncology product composed of functionalized hafnium oxide nanoparticles that is administered via one-time intratumoral injection and activated by radiotherapy. Its proof-of-concept was achieved in soft tissue sarcomas for which the product received a European CE mark in 2019. The product candidate's physical mechanism of action (MoA) is designed to induce significant tumor cell death in the injected tumor when activated by radiotherapy, subsequently triggering adaptive immune response and long-term anti-cancer memory. Given the physical MoA, Nanobiotix believes that NBTXR3 could be scalable across any solid tumor that can be treated with radiotherapy and across any therapeutic combination, particularly immune checkpoint inhibitors.

Radiotherapy-activated NBTXR3 is being evaluated across multiple solid tumor indications as a single agent or in combination with anti-PD-1 immune checkpoint inhibitors, including in NANORAY-312—a global, randomized Phase 3 study in locally advanced head and neck squamous cell cancers. In February 2020, the United States Food and Drug Administration granted regulatory Fast Track designation for the investigation of NBTXR3 activated by radiation therapy, with or without cetuximab, for the treatment of patients with locally advanced HNSCC who are not eligible for platinum-based chemotherapy—the same population being evaluated in the Phase 3 study.

Given the Company's focus areas, and balanced against the scalable potential of NBTXR3, Nanobiotix has engaged in a collaboration strategy to expand development of the product candidate in parallel with its priority development pathways. Pursuant to this strategy, in 2019 Nanobiotix entered into a broad, comprehensive clinical research collaboration with The University of Texas MD Anderson Cancer Center to sponsor several Phase 1 and Phase 2 studies evaluating NBTXR3 across tumor types and therapeutic combinations. In 2021, the Company announced an agreement with LianBio to expand development of NBTXR3 into Greater China and other Asian Markets, and in 2023 Nanobiotix announced a license agreement for the global co-development and commercialization of NBTXR3 with Janssen Pharmaceutica NV.

About NANOBIOTIX

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, among other, Cambridge, Massachusetts (United States).

Nanobiotix is the owner of more than 20 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. The Company's resources are primarily devoted to the development of its lead product candidate—NBTXR3—which is the product of its proprietary oncology platform and has been granted with a CE marking in Europe for the treatment of patients with soft tissue sarcoma under the brand name Hensify®.

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

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 "entering," "intend," "subject to," and "until," 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 negotiations regarding and entry into a definitive agreement for the development and commercialization arrangement with a major global pharmaceutical company and the significance of such an agreement for the Company. 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 the Company and the major global pharmaceutical company will not reach a final and binding definitive agreement with respect to the development and commercialization of NBTXR3, including as a result of market conditions or the major global pharmaceutical company's due diligence review or for any other reason in either party's discretion, and the risk that either party will not obtain the requisite internal corporate approvals with respect to such definitive terms, if agreed. Furthermore, many other important risks factors and uncertainties, including those described in our Annual Report on Form 20-F filed with the U.S. Securities and Exchange Commission (the SEC) on April 24, 2023 under "Item 3.D. Risk Factors" and those set forth in the universal registration document of Nanobiotix filed with the French Financial Markets Authority (Autorité des Marchés Financiers – the AMF) on April 24, 2023, (a copy of which is available on www.nanobiotix.com) 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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Attachment

• 2023-09-05 -- NBTX -- Dr Louis Kayitalire as CMO -- FINAL (https://ml.globenewswire.com/Resource/Download/cc731c19-2bac-4694-b5fa-bc8cb8ada51a)