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 June 2021

Commission File Number: 001-39461

NANO-X IMAGING LTD

Communications Center
Neve Ilan, Israel 9085000
(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): ☐

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

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): ☐

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

On June 17, 2021, NANO-X IMAGING LTD (the “Company”) issued a press release, a copy of which is attached hereto as Exhibit 99.1 and incorporated herein by reference.

The information contained in this report, except the second and fourth paragraphs of Exhibit 99.1, which contain certain quotes by the Chairman and Chief Executive Officer of the Company, is hereby incorporated by reference into the Registration Statement on Form S-8, File No. 333-248322.

EXHIBIT INDEX

Exhibit No.	Exhibit
99.1	Press release, dated June 17, 2021.

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.

NANO-X IMAGING LTD

By: /s/ Tal Shank
Name: Tal Shank
Title: Vice President of Corporate Development

Date: June 17, 2021

Exhibit 99.1

Nanox Announces FDA 510(k) Submission for First Version of Multi-Source Nanox.ARC

510(K) Class II FDA submission seeks clearance of the first version of company's multi-source 3-D digital tomosynthesis system as the next step in its U.S. regulatory process

NEVE ILAN, Israel – June 17, 2021 -- NANOX IMAGING LTD (NASDAQ: NNOX) ("**Nanox**" or the "**Company**"), an innovative medical imaging technology company, announced today that the Company has submitted a 510(k) premarket notification application to the U.S. Food and Drug Administration (FDA) for the first version of its multi-source Nanox.ARC 3-D digital tomosynthesis system.

"The 510(k) submission for the first version of our multi-source Nanox.ARC is an important achievement," stated Ran Poliakine, Chairman and Chief Executive Officer of Nanox. "There exists a significant unmet medical need globally for a more accessible and cost-effective medical imaging solution. If cleared by the FDA, we believe our Nanox.ARC 3-D digital tomosynthesis can address this need."

The first version of the multi-source Nanox.ARC will followed by future Nanox.ARC versions. Nanox.ARC is a 3-D tomosynthesis imaging system that produces scans of a human body part. The system is being designed for easy setup and operation with multiple alternately-switched X-ray tubes arranged around the patient.

"We are excited to take this next step in our regulatory process as we move toward future versions of the multi-source Nanox.ARC, which will fulfill current and future contracts with service providers and collaboration agreements and allow us to achieve our global vision," added Mr. Poliakine.

Nanox received FDA clearance of its single source Nanox Cart X-Ray System in April 2021.

About Nanox:

Nanox, founded by the serial entrepreneur Ran Poliakine, is an Israeli corporation that is developing a commercial-grade digital X-ray source designed to be used in real-world medical imaging applications. Nanox believes that its novel technology could significantly reduce the costs of medical imaging systems and plans to seek collaborations with world-leading healthcare organizations and companies to provide affordable, early detection imaging service for all. For more information, please visit www.nanox.vision.

Forward-Looking Statements:

This press release may contain forward-looking statements that are subject to risks and uncertainties. All statements that are not historical facts contained in this press release are forward-looking statements. Such statements include, but are not limited to, any statements relating to the initiation, timing, progress and results of Nanox's research and development, manufacturing and commercialization activities with respect to its X-ray source technology and the Nanox.Arc. In some cases, you can identify forward-looking statements by terminology such as "can," "might," "believe," "may," "estimate," "continue," "anticipate," "intend," "should," "plan," "should," "could," "expect," "predict," "potential," or the negative of these terms or other similar expressions. Forward-looking statements are based on information Nanox has when those statements are made or management's good faith belief as of that time with respect to future events, and are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in or suggested by the forward-looking statements. Factors that could cause actual results to differ materially from those currently anticipated include: risks related to business interruptions resulting from the COVID-19 pandemic or similar public health crises could cause a disruption of the development, deployment or regulatory clearance of the Nanox System and adversely impact our business; Nanox's ability to successfully demonstrate the feasibility of its technology for commercial applications; Nanox's expectations regarding the necessity of, timing of filing for, and receipt and maintenance of, regulatory clearances or approvals regarding its X-ray source technology and the Nanox.Arc from regulatory agencies worldwide and its ongoing compliance with applicable quality standards and regulatory requirements; Nanox's ability to enter into and maintain commercially reasonable arrangements with third-party manufacturers and suppliers to manufacture the Nanox.Arc; the market acceptance of the Nanox.Arc and the proposed pay-per-scan business model; Nanox's expectations regarding collaborations with third-parties and their potential benefits; and Nanox's ability to conduct business globally, among others. Except as required by law, Nanox undertakes no obligation to update publicly any forward-looking statements after the date of this press release to conform these statements to actual results or to changes in Nanox's expectations.

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