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 **July 2026**

Commission File Number: **001-39461**

NANO-X IMAGING LTD
(Translation of registrant's name into English)

Ofer Tech Park
94 Shlomo Shmeltzer Road
Petach Tikva
Israel 4970602
(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 ☐

CONTENTS

Legal Opinion as to Validity of Shares Under ATM Offering

NANO-X IMAGING LTD (the “**Company**”) is filing this Report of Foreign Private Issuer on Form 6-K (this “**Form 6-K**”) solely to file as an exhibit the legal opinion of Meitar Law Offices, Israeli counsel to the Company, relating to the validity of the remaining $53.9 million of the Company’s ordinary shares, par value NIS 0.01 per share, that may be issued and sold from time to time hereafter (the “**Shares**”) under the Controlled Equity Offering^{SM} Sales Agreement, dated June 7, 2024, by and between the Company and Cantor Fitzgerald & Co. and Mizuho Securities USA LLC, as sales agents, and pursuant to the Company’s shelf registration statement on Form F-3 (File No. 333-294302) filed with the Securities and Exchange Commission (the “**SEC**”) on March 13, 2026, as amended by Amendment No. 1 thereto filed on March 26, 2026, and declared effective by the SEC on March 30, 2026 (the “**Form F-3**”), and a prospectus supplement, dated July 23, 2026, filed by the Company with the SEC pursuant to Rule 424(b)(5) under the Securities Act of 1933 on July 23, 2026 (the “**Prospectus Supplement**”) (which supplements the prospectus in the Form F-3), as the same may be amended or supplemented.

A copy of that legal opinion serves as Exhibit 5.1 to this Form 6-K.

This Form 6-K does not constitute an offer to sell or the solicitation of an offer to buy any of the Shares.

Exhibits

Exhibit No.	Exhibit
5.1	Legal opinion of Meitar Law Offices, Israeli counsel to the Company, as to the validity of the Shares to be sold under the Prospectus Supplement
10.1	Sales Agreement, dated as of June 7, 2024, among the Company, Cantor Fitzgerald & Co., and Mizuho Securities USA LLC. (incorporated by reference to Exhibit 10.1 to the Company’s Report of Foreign Private Issuer on Form 6-K furnished to the SEC on June 7, 2024)

Incorporation by Reference

The contents of this Form 6-K, including Exhibits 5.1 and 10.1 hereto, are hereby incorporated by reference into the Form F-3 and the Prospectus Supplement.

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/ Erez Meltzer
Name:	Erez Meltzer
Title:	Chief Executive Officer and Acting Chairman of the Board
Date:	July 23, 2026

Exhibit 5.1

MEITAR | LAW OFFICES
16 Abba Hillel Silver Road, Ramat Gan, 5250608, Israel
Tel. + 972 3 6103100 Fax. + 972 3 6103111 www.meitar.com

July 23, 2026

NANO-X IMAGING LTD.
Ofer Tech Park
94 Shlomo Shmeltzer Road
Petach Tikva
Israel 4970602

Re: **NANO-X IMAGING LTD.**

Ladies and Gentlemen:

We have acted as Israeli counsel for Nano-X Imaging Ltd., a company organized under the laws of the State of Israel (the “**Company**”), in connection with the Controlled Equity Offering^{SM} Sales Agreement, dated as of June 7, 2024(the “**Sales Agreement**”), with Cantor Fitzgerald & Co. and Mizuho Securities USA LLC (the “**Agents**”), pursuant to which the Company has agreed to offer and sell (the “**Offering**”), from time to time, its ordinary shares having an aggregate offering price of up to $100,000,000 (the “**ATM Shares**”). The remaining available ATM Shares to be offered, issued and sold under the Sales Agreement on or after the date hereof, in an aggregate offering amount of up to $53,900,000 (the “**Prospective ATM Shares**”) will be issued pursuant to (i) the Company’s shelf registration statement on Form F-3 (File No. 333-294302) initially filed with the Securities and Exchange Commission (the “**SEC**”) under the Securities Act of 1933, as amended (the “**Securities Act**”) on March 13, 2026, as amended by Amendment No. 1 thereto filed on March 26, 2026 (as so amended, the “**Registration Statement**”), which Registration Statement was declared effective by the SEC on March 30, 2026, and (ii) the prospectus supplement, dated July 23, 2026, to the prospectus contained within the Registration Statement, which relates to the Sales Agreement and covers the Prospective ATM Shares (the “**Prospectus Supplement**”).

In connection herewith, we have examined the originals, or photocopies or copies, certified or otherwise identified to our satisfaction, of: (i) the Registration Statement; (ii) a draft of the Prospectus Supplement; (iii) the amended and restated articles of association of the Company, as amended to the date hereof (the “**Articles of Association**”); (iv) the Sales Agreement (including Amendment No. 1 thereto); (v) resolutions of the board of directors of the Company (the “**Board**”) that approve the Company’s entry into the Sales Agreement and Amendment No. 1 thereto, the Company’s filing of the Registration Statement and the Prospectus Supplement with the SEC, the Company’s Offering of the ATM Shares (including the Prospective ATM Shares) pursuant to the Sales Agreement, as amended, and additional actions to be taken in connection therewith; and (vi) such other corporate records, agreements, documents and other instruments, and such certificates or comparable documents of public officials and of officers of the Company as we have deemed relevant and necessary as a basis for the opinions hereafter set forth. We have also made inquiries of such officers of the Company as we have deemed relevant and necessary as a basis for the opinions hereafter set forth.

In such examination, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, confirmed as photostatic copies and the authenticity of the originals of such latter documents. As to all questions of fact material to these opinions that have not been independently established, we have relied upon certificates or comparable documents of officers and representatives of the Company.

Based upon and subject to the foregoing, we are of the opinion that, assuming that prior to the issuance of any of the Prospective ATM Shares by the Company through the Agents under the Sales Agreement, the price per share, aggregate offering price and/or number of Prospective ATM Shares, and certain other terms of issuance with respect to any specific placement notice delivered under the Sales Agreement will be authorized and approved by the Board or a pricing committee of the Board in accordance with Israeli law, and all corporate proceedings necessary for the authorization, issuance and delivery of the Prospective ATM Shares shall have been taken, upon issuance pursuant to the terms of the Sales Agreement and in accordance with resolutions of the Board related to the Offering, the Prospective ATM Shares as described in the Prospectus Supplement will be validly issued, fully paid and non-assessable.

We note that, as of the date hereof, based on the current market price of the Company's ordinary shares, the number of ordinary shares authorized and available for issuance under the Articles of Association would be insufficient to permit the issuance and sale of all of the Prospective ATM Shares under the Sales Agreement for the full remaining aggregate offering amount of $53,900,000. To the extent that the issuance of some of the Prospective ATM Shares under the Sales Agreement would require ordinary shares in excess of the Company's then-authorized and available share capital, the Company would first need to obtain the approval of its shareholders, by the requisite majority under the Israeli Companies Law, 5759-1999 and the Articles of Association, of an amendment to the Articles of Association to increase the Company's authorized share capital. We express no opinion as to the Prospective ATM Shares, if any, that may be issuable only following such an increase in authorized share capital.

Members of our firm are admitted to the Bar in the State of Israel, and we do not express any opinion as to the laws of any other jurisdiction. This opinion is limited to the matters stated herein and no opinion is implied or may be inferred beyond the matters expressly stated.

We hereby consent to the furnishing of this opinion as an exhibit to the Company's Report of Foreign Private Issuer on Form 6-K dated July 23, 2026, and to the incorporation by reference of this opinion into the Registration Statement, including the Prospectus Supplement, and to the use of our name wherever it appears in the Registration Statement and the prospectus forming part of the Registration Statement, including the Prospectus Supplement. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act, the rules and regulations of the SEC promulgated thereunder, or Item 509 of the SEC's Regulation S-K promulgated under the Securities Act.

This opinion letter is rendered as of the date hereof and we disclaim any obligation to advise you of facts, circumstances, events or developments that may be brought to our attention after the date of the Prospectus Supplement that may alter, affect or modify the opinions expressed herein.

Very truly yours,

/s/ Meitar | Law Offices

Meitar | Law Offices