
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

Alamar Biosciences, Inc.

(Name of Issuer)

Common Stock, par value \$0.0001 per share

(Title of Class of Securities)

(CUSIP Number)

**Nicholas Naclerio
500 Lincoln Centre Drive, Suite 110
Foster City, CA, 94404
650-781-9770**

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

04/20/2026

(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

The information required on the remainder of this cover page shall not be deemed to be “filed” for the purpose of Section 18 of the Securities Exchange Act of 1934 (“Act”) or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

SCHEDULE 13D

CUSIP No.

Name of reporting person

1
Illumina Innovation Fund II GP, L.L.C.

Check the appropriate box if a member of a Group (See Instructions)

2
 (a)
 (b)

3
SEC use only

4 Source of funds (See Instructions)
 AF
 Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)
 5
 Citizenship or place of organization
 6 DELAWARE
 Sole Voting Power
 7
 Number of Shares Beneficially Owned by Each Reporting Person With:
 0.00
 Shared Voting Power
 8 5,856,536.00
 Sole Dispositive Power
 9 0.00
 Shared Dispositive Power
 10 5,856,536.00
 Aggregate amount beneficially owned by each reporting person
 11 5,856,536.00
 Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)
 12
 Percent of class represented by amount in Row (11)
 13 8.8 %
 Type of Reporting Person (See Instructions)
 14 OO

Comment for Type of Reporting Person: All such shares are held of record by IIF II (as defined in Item 2(a) below). IIF II GP (as defined in Item 2(a) below) is the general partner of IIF II and may be deemed to have voting, investment and dispositive power with respect to these securities. Nicholase Naclerio, a member of the Issuer's board of directors, is the sole managing member of IIF II GP and may be deemed to share voting, investment and dispositive power with respect to these securities. The percentage in Row 13 is based on 66,521,425 shares of Common Stock (as defined in Item 1 below) outstanding after the Issuer's initial public offering (excluding the underwriters' option to purchase an additional 1,687,500 shares), as reported in the Issuer's prospectus on Form 424(b)(4) and filed with the Securities and Exchange Commission ("Commission") on April 17, 2026 (the "Prospectus").

SCHEDULE 13D

CUSIP No.

Name of reporting person
 1 Illumina Innovation Fund II, L.P.
 Check the appropriate box if a member of a Group (See Instructions)
 2 (a)
 (b)
 3 SEC use only
 Source of funds (See Instructions)
 4 WC
 Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)
 5

6 Citizenship or place of organization
 DELAWARE
 Sole Voting Power
 7
 Number of Shares Beneficially Owned by Each Reporting Person With: 8
 0.00
 Shared Voting Power
 5,856,536.00
 Sole Dispositive Power
 9
 0.00
 Shared Dispositive Power
 10
 5,856,536.00
 11 Aggregate amount beneficially owned by each reporting person
 5,856,536.00
 12 Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

 13 Percent of class represented by amount in Row (11)
 8.8 %
 Type of Reporting Person (See Instructions)
 14
 PN

Comment for Type of Reporting Person: All such shares are held of record by IIF II. IIF II GP is the general partner of IIF II and may be deemed to have voting, investment and dispositive power with respect to these securities. Nicholas Naclerio, a member of the Issuer's board of directors, is the sole managing member of IIF II GP and may be deemed to share voting, investment and dispositive power with respect to these securities. The percentage in Row 13 is based on 66,521,425 shares of Common Stock outstanding after the Issuer's initial public offering, as reported in the Prospectus.

SCHEDULE 13D

CUSIP No.

1 Name of reporting person
 Illumina Innovation Fund III GP, L.L.C.
 Check the appropriate box if a member of a Group (See Instructions)
 2
 (a)
 (b)
 3 SEC use only
 Source of funds (See Instructions)
 4
 AF
 Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)
 5

 Citizenship or place of organization
 6
 DELAWARE
 Number of Shares Beneficially Owned by Each 7
 Sole Voting Power
 0.00
 Shared Voting Power
 8

Reporting Person With: 507,076.00
 Sole Dispositive Power
 9
 0.00
 Shared Dispositive Power
 10
 507,076.00

Aggregate amount beneficially owned by each reporting person

11
 507,076.00
 Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

12

 Percent of class represented by amount in Row (11)

13
 0.8 %

14
 Type of Reporting Person (See Instructions)

OO

Comment for Type of Reporting Person: All such shares are held of record by IIF III (as defined in Item 2(a) below). IIF III GP (as defined in Item 2(a) below) is the general partner of IIF III and may be deemed to have voting, investment and dispositive power with respect to these securities. Nicholase Naclerio, a member of the Issuer's board of directors, is the sole managing member of IIF III GP and may be deemed to share voting, investment and dispositive power with respect to these securities. The percentage in Row 13 is based on 66,521,425 shares of Common Stock outstanding after the Issuer's initial public offering, as reported in the Prospectus.

SCHEDULE 13D

CUSIP No.

1 Name of reporting person

Illumina Innovation Fund III, L.P.

Check the appropriate box if a member of a Group (See Instructions)

2
 (a)
 (b)

3 SEC use only

Source of funds (See Instructions)

4
 WC

Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

5

Citizenship or place of organization

6
 DELAWARE

Sole Voting Power

7

Number of Shares Beneficially Owned by Each Reporting Person With: 0.00
 Shared Voting Power

8
 507,076.00

Sole Dispositive Power

9
 0.00

Shared Dispositive Power

10

507,076.00

11 Aggregate amount beneficially owned by each reporting person
507,076.00
Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

12

Percent of class represented by amount in Row (11)

13 0.8 %

Type of Reporting Person (See Instructions)

14 PN

Comment All such shares are held of record by IIF III. IIF III GP is the general partner of IIF III and may be deemed to have for Type voting, investment and dispositive power with respect to these securities. Nicholas Naclerio, a member of the Issuer's of board of directors, is the sole managing member of IIF III GP and may be deemed to share voting, investment and Reporting dispositive power with respect to these securities. The percentage in Row 13 is based on 66,521,425 shares of Person: Common Stock outstanding after the Issuer's initial public offering, as reported in the Prospectus.

SCHEDULE 13D

CUSIP No.

Name of reporting person

1 Nicholas Naclerio
Check the appropriate box if a member of a Group (See Instructions)

2 (a)
 (b)

3 SEC use only

Source of funds (See Instructions)

4 AF

Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

5

Citizenship or place of organization

6 UNITED STATES

Sole Voting Power

7 0.00

Number of Shares Beneficially Owned by Each Reporting Person With:

8 Shared Voting Power
6,363,612.00

9 Sole Dispositive Power
0.00

10 Shared Dispositive Power
6,363,612.00

Aggregate amount beneficially owned by each reporting person

11 6,363,612.00
Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

12

13 Percent of class represented by amount in Row (11)

Comment of Reporting Person: The shares reported on this cover page consist of (i) 5,856,536 shares of Common Stock held by IIF II and (ii) 507,076 shares of Common Stock held by IIF III. IIF II GP is the general partner of IIF II and may be deemed to have voting, investment and dispositive power with respect to the shares held by IIF II. IIF III GP is the general partner of IIF III and may be deemed to have voting, investment and dispositive power with respect to the shares held by IIF III. Nicholas Naclerio, a member of the Issuer's board of directors, is the sole managing member of each of IIF II GP and IIF III GP and may be deemed to share voting, investment and dispositive power with respect to the shares held by each of IIF II and IIF III, respectively. The percentage in Row 13 is based on 66,521,425 shares of Common Stock outstanding after the Issuer's initial public offering, as reported in the Prospectus.

SCHEDULE 13D

Item 1. Security and Issuer

Title of Class of Securities:

(a)

Common Stock, par value \$0.0001 per share

Name of Issuer:

(b)

Alamar Biosciences, Inc.

Address of Issuer's Principal Executive Offices:

(c)

47071 Bayside Parkway, Fremont, CALIFORNIA , 94538.

Item 1 Comment: This joint statement on Schedule 13D (this "Statement") is filed with respect to the common stock, par value \$0.0001 per share ("Common Stock"), of Alamar Biosciences, Inc., a Delaware corporation (the "Issuer"). Information given in response to each item shall be deemed incorporated by reference in all other items, as applicable.

Item 2. Identity and Background

This Statement is being filed by Illumina Innovation Fund II, L.P. ("IIF II"), Illumina Innovation Fund II GP, L.L.C. ("IIF II GP"), Illumina Innovation Fund III, L.P. ("IIF III"), Illumina Innovation Fund III GP, L.L.C. ("IIF III GP", and together with IIF II, IIF II GP, and IIF III, the "Reporting Entities"), and Nicholas Naclerio (the "Reporting Individual"). The Reporting Entities and the Reporting Individual are collectively referred to as the "Reporting Persons". The Reporting Persons expressly disclaim status as a "group" for purposes of this Schedule 13D. The agreement among the Reporting Persons to file jointly in accordance with the provisions of Rule 13d-1(k)(1) under the Act is attached to this Statement as Exhibit 1. Other than those securities reported herein as being held directly by such Reporting Person, each Reporting Person disclaims beneficial ownership of all securities reported in this Statement except to the extent of such Reporting Person's pecuniary interest therein.

(a) 500 Lincoln Centre Drive, Suite 110, Foster City, CA 94404

IIF II and IIF III are venture capital investment entities and IIF II GP and IIF III GP are the general partners of IIF II and IIF III, respectively. The Reporting Individual is engaged through each of IIF II and IIF III in acquiring, holding and disposing of interests in various companies for investment purposes. The Reporting Individual is the sole managing member of each of IIF II GP and IIF III GP.

(b) During the past five years, none of the Reporting Persons have been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

None of the Reporting Persons are, nor during the last five years have been, a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(c) Each of IIF II GP and IIF III GP is a limited liability company organized under the laws of the State of Delaware. Each of IIF II and IIF III is a limited partnership organized under the laws of the State of Delaware. The Reporting Individual is a citizen of the United States of America.

Item 3. Source and Amount of Funds or Other Consideration

In May of 2020, IIF II purchased 3,194,377 shares of the Issuer's Series A-3 Preferred Stock for a purchase price of \$1.06437 per share and an aggregate purchase price of \$3,399,999.05. In May of 2021, IIF II purchased 2,862,507 shares of the Issuer's Series A-4 Preferred Stock for a purchase price of \$1.18777 per share and an aggregate purchase price of \$3,399,999.94. In August of 2021, IIF II purchased 2,094,266 shares of the Issuer's Series B Preferred Stock for a purchase price of \$4.0587 per share and an aggregate purchase price of \$8,499,997.42. In February of 2024, IIF II purchased 5,037,783 shares of the Issuer's Series C Preferred Stock for a purchase price of \$2.9775 per share and an aggregate purchase price of \$14,999,998.89. On January 8, 2026, IIF II and IIF III entered into a Note Purchase Agreement, pursuant to which IIF II acquired from the Issuer convertible promissory notes in the aggregate principal

amount of \$5,000,000.00 and IIF III acquired from the Issuer convertible promissory notes in the aggregate principal amount of \$3,927,259.98. On April 10, 2026, the Issuer effected a reverse stock split of its Class A and Class B common stock on a one-for-2.418 basis without payment or additional consideration. On April 20, 2026, IIF III purchased 235,294 shares of Common Stock in connection with the the Issuer's initial public offering ("Offering"), for a purchase price of \$17.00 per share and an aggregate purchase price of \$3,999,998.00 (the "Purchase"). Upon the closing of the Offering, (i) each share of Series A-3 Preferred Stock, Series A-4 Preferred Stock, and Series C Preferred Stock automatically converted into shares of Class B Common Stock on a one-for-2.418 basis and without payment or additional consideration, (ii) each share of Series B Preferred Stock automatically converted into shares of Class B common stock on a one-for-2.271 basis and without payment or additional consideration (together, the "Preferred Stock Conversion"), and (iii) the principal amount of the convertible promissory notes automatically converted into shares of Common Stock at a conversion price equal to the initial public offering price multiplied by 0.85 (the "Note Conversion" and together with the Preferred Stock Conversion, the "Conversion"). Additionally, immediately prior to the completion of the Offering, each share of Class B common stock was reclassified into shares of Common Stock (the "Reclassification"). Following the Conversion, the Reclassification and the Purchase, each of IIF II and IIF III directly held such number of shares of Common Stock set forth in Item 11 of their respective Cover Pages. All shares of the capital stock of the Issuer covered by this Statement were originally acquired by IIF II and IIF III using investment funds provided to each of IIF II and IIF III by their respective limited and general partner investors. Unless noted above, no part of the purchase price was borrowed by any Reporting Person for the purpose of acquiring any securities discussed in this Item 3.

Item 4. Purpose of Transaction

The information set forth in Item 3 of this Statement is incorporated herein by reference. The Reporting Persons hold the securities of the Issuer for general investment purposes. The Reporting Persons may, from time to time, depending on prevailing market, economic and other conditions, acquire additional shares of Common Stock or other securities of the Issuer, dispose of any such securities, or engage in discussions with the Issuer concerning such acquisitions or dispositions or further investments in the Issuer. The Reporting Persons intend to review their investment in the Issuer on a continuing basis and, depending upon the price and availability of shares of Common Stock or other securities of the Issuer, subsequent developments affecting the Issuer, the Issuer's business and prospects, other investment and business opportunities available to the Reporting Persons, general stock market and economic conditions, tax considerations and other factors considered relevant, may decide at any time to increase or to decrease the size of their investment in the Issuer in the open market, in privately negotiated transactions, pursuant to 10b5-1 trading plans or otherwise. Nicholas Naclerio is a member of the Issuer's board of directors. In addition, Nicholas Naclerio, in his capacity as a director, may be entitled to receive cash compensation and equity compensation, including stock option or other equity awards, pursuant to the Issuer's non-employee director compensation policy, which became effective upon the effective date of the Registration Statement (as defined below). Except as set forth above, the Reporting Persons have no present plans or intentions which would result in or relate to any of the transactions described in subparagraphs (a) through (j) of Item 4 of Schedule 13D.

Item 5. Interest in Securities of the Issuer

- (a) See Items 7-11 and 13 of the cover pages of this Statement for each Reporting Person.
- (b) See Items 7-11 and 13 of the cover pages of this Statement for each Reporting Person.
- (c) Except as reported in this Statement, none of the Reporting Persons has effected any transactions in the Issuer's securities within the past 60 days.
- (d) Under certain circumstances set forth in the limited partnership agreement of each of IIF II and IIF III, the limited and general partners of IIF II and IIF III may be deemed to have the right to receive dividends from, or the proceeds from, the sale of shares of the Issuer owned by IIF II and IIF III, respectively.
- (e) Not Applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships With Respect to Securities of the Issuer

In connection with its purchase of shares of the Issuer's Series C Preferred Stock, IIF II and certain of the Issuer's other investors entered into an Amended and Restated Investors' Rights Agreement, dated February 21, 2024, with the Issuer (the "Rights Agreement"). After the closing of the Offering, the stockholders party thereto are entitled to certain registration rights, including the right to demand that that the Issuer file a registration statement or request that their shares be covered by a registration statement that the Issuer is otherwise filing. The terms and provisions of the Rights Agreement are described more fully in the Issuer's Registration Statement on Form S-1 (File No. 333-294697) declared effective by the Commission on April 16, 2026 (the "Registration Statement"), and the above summary is qualified by reference to such description and the full text of the Rights Agreement, which is filed as Exhibit 2 to this Statement and is incorporated herein by reference. In connection with the Offering, IIF II and IIF III have entered into a lock-up agreement, pursuant to which IIF II and IIF III have agreed, subject to certain exceptions, not to sell, transfer or otherwise convey any of the Issuer's securities held by each of IIF II and IIF III for 180 days following the date of the underwriting agreement for the Offering. The terms and provisions of the lock-up agreement is described more fully in the Registration Statement, and the above summary is qualified by reference to such description and the full text of the lock-up agreement, a form of which is filed as Exhibit 3 to this Statement and is incorporated herein by reference. Nicholas Naclerio, in his capacity as a director, may be entitled to receive cash compensation and equity compensation, including stock option or other equity awards, pursuant to the Issuer's 2026 Equity Incentive Plan (the "Option Plan"), and the Issuer's non-employee director compensation policy (the "Compensation Plan"). The terms and provisions of the Option Plan and the Compensation Plan are described in the Registration Statement and the full text of which is filed as Exhibit 4 to this Statement and is incorporated herein by reference. The Issuer has entered into an indemnification agreement with each of its directors and executive officers, including Nicholas Naclerio. The

indemnification agreement requires the Issuer, among other things, to indemnify Nicholas Naclerio for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by Nicholas Naclerio in any action or proceeding arising out of his services as a director. The terms and provisions of the indemnification agreement are described more fully in the Registration Statement, and the above summary is qualified by reference to such description and the full text of the Registration Statement, which is filed as Exhibit 5 to this Statement and is incorporated herein by reference.

Item 7. Material to be Filed as Exhibits.

Exhibit 1: Joint Filing Agreement, dated as of April 23, 2026, by and among the Reporting Persons (filed herewith). Exhibit 2: Amended and Restated Investors' Rights Agreement, dated as of February 21, 2024 (filed as Exhibit 4.2 to the Issuer's Statement on Form S-1 as filed with the Commission on March 27, 2026 (SEC File No. 333-294697) and incorporated herein by reference). Exhibit 3: Form of Lock-Up Agreement for certain directors, officers and other stockholders of the Issuer (filed as Exhibit D to the Underwriting Agreement, which is filed as Exhibit 1.1 to the Issuer's Statement on Form S-1/A as filed with the Commission on April 13, 2026 (SEC File No. 333-294697) and incorporated herein by reference). Exhibit 4: 2026 Equity Incentive Plan and associated forms (filed as Exhibit 10.3 to the Issuer's Statement on Form S-1/A as filed with the Commission on April 13, 2026 (SEC File No. 333-294697) and incorporated herein by reference). Exhibit 5: Form of Indemnification Agreement by and between the Issuer and its directors and officers (filed as 10.8 to the Issuer's Registration State on Form S-1/A as filed with the Commission on April 13, 2026 (SEC File No. 333-294697) and incorporated herein by reference).

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Illumina Innovation Fund II GP, L.L.C.

Signature: /s/ Nicholas Naclerio
Name/Title: Nicholas Naclerio, Managing Member
Date: 04/23/2026

Illumina Innovation Fund II, L.P.

Signature: /s/ Nicholas Naclerio
Nicholas Naclerio, Managing Member of Illumina
Name/Title: Innovation Fund II GP, L.L.C., the general partner
of Illumina Innovation Fund II, L.P.
Date: 04/23/2026

Illumina Innovation Fund III GP, L.L.C.

Signature: /s/ Nicholas Naclerio
Name/Title: Nicholas Naclerio, Managing Member
Date: 04/23/2026

Illumina Innovation Fund III, L.P.

Signature: /s/ Nicholas Naclerio
Nicholas Naclerio, Managing Member of Illumina
Name/Title: Innovation Fund III GP, L.L.C., the general
partner of Illumina Innovation Fund III, L.P.
Date: 04/23/2026

Nicholas Naclerio

Signature: /s/ Nicholas Naclerio
Name/Title: Nicholas Naclerio
Date: 04/23/2026