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

**SCHEDULE 13D**  
(Rule 13d-101)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT  
TO § 240.13d-1(a) AND AMENDMENTS THERETO FILED PURSUANT TO  
§ 240.13d-2(a)

(Amendment No. 2)<sup>1</sup>

**Ayala Pharmaceuticals, Inc.**  
(Name of Issuer)

Common Stock, par value \$0.001 per share  
(Title of Class of Securities)

007624307  
(CUSIP Number)

I.B.F Management Ltd.  
HaOgen Tower, 4 Oppenheimer St., Rehovot 7670104, Israel  
TEL: 972-722-514175  
(Name, Address and Telephone Number of Person  
Authorized to Receive Notices and Communications)

November 17, 2023  
(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 .

*Note:* Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See § 240.13d-7 for other parties to whom copies are to be sent.

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<sup>1</sup> The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

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*).

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1	NAME OF REPORTING PERSONS Israel Biotech Fund I, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS OO	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Cayman Islands	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER - 0 -
	8	SHARED VOTING POWER 23,180,561*
	9	SOLE DISPOSITIVE POWER - 0 -
	10	SHARED DISPOSITIVE POWER 23,180,561*
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 23,180,561*	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 68.6% **	
14	TYPE OF REPORTING PERSON PN	

\* See Item 5.

\*\* Based on 11,896,846 shares of common stock, par value \$0.001 per share (the "Common Stock") of Ayala Pharmaceuticals, Inc. (the "Issuer") issued and outstanding as of November 17, 2023, according information received from the Issuer.

1	NAME OF REPORTING PERSONS Israel Biotech Fund II, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS OO	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Cayman Islands	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER - 0 -
	8	SHARED VOTING POWER 27,559,308*
	9	SOLE DISPOSITIVE POWER - 0 -
	10	SHARED DISPOSITIVE POWER 27,559,308*
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 27,559,308*	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 71.0%**	
14	TYPE OF REPORTING PERSON PN	

\* See Item 5.

\*\* Based on 11,896,846 shares of Common Stock issued and outstanding as of November 17, 2023, according information received from the Issuer.

1	NAME OF REPORTING PERSONS Israel Biotech Fund GP Partners, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS OO	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Cayman Islands	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER - 0 -
	8	SHARED VOTING POWER 23,180,561*
	9	SOLE DISPOSITIVE POWER - 0 -
	10	SHARED DISPOSITIVE POWER 23,180,561*
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 23,180,561*	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 68.6%**	
14	TYPE OF REPORTING PERSON PN	

\* See Item 5.

\*\* Based on 11,896,846 shares of Common Stock issued and outstanding as of November 17, 2023, according information received from the Issuer.

1	NAME OF REPORTING PERSONS Israel Biotech Fund GP Partners II, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS OO	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Cayman Islands	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER - 0 -
	8	SHARED VOTING POWER 27,559,308*
	9	SOLE DISPOSITIVE POWER - 0 -
	10	SHARED DISPOSITIVE POWER 27,559,308*
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 27,559,308*	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 71.0%**	
14	TYPE OF REPORTING PERSON PN	

\* See Item 5.

\*\* Based on 11,896,846 shares of Common Stock issued and outstanding as of November 17, 2023, according information received from the Issuer.

1	NAME OF REPORTING PERSONS I.B.F Management Ltd.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS OO	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Israel	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER - 0 -
	8	SHARED VOTING POWER 50,739,869*
	9	SOLE DISPOSITIVE POWER - 0 -
	10	SHARED DISPOSITIVE POWER 50,739,869*
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 50,739,869*	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 83.6%**	
14	TYPE OF REPORTING PERSON CO	

\* See Item 5.

\*\* Based on 11,896,846 shares of Common Stock issued and outstanding as of November 17, 2023, according information received from the Issuer.

This Amendment No. 2 to Schedule 13D (this “Amendment”) amends and supplements the Statement on Schedule 13D initially filed by the Reporting Persons with the Securities and Exchange Commission (the “SEC”) on September 11, 2023, as amended by the Schedule 13D/A previously filed with the SEC on October 31, 2023 (the “Statement”) with respect to the shares of common stock, par value \$0.001 per share (the “Common Stock”) of Ayala Pharmaceuticals, Inc. (the “Issuer”), a corporation incorporated under the laws of the State of Delaware. *Capitalized terms not defined herein shall have the meaning ascribed thereto in the Statement.*

The following amends and supplements Items 3, 4, 5 and 7 of the Statement.

Item 3. Source and Amount of Funds or Other Consideration.

*Item 3 of the Statement is hereby amended and supplemented to add the following:*

See Item 4, which is incorporated herein by reference.

Item 4. Purpose of Transaction.

*Item 4 of the Statement is hereby amended and supplemented to add the following:*

*New Notes and Warrants.* On November 17, 2023, the Issuer issued Senior Convertible Promissory Notes (the “New Notes”) to several investors in the aggregate principal amount of \$4,000,000, including New Notes to each of IBF I and IBF II, with a principal amount of \$750,000 and \$1,650,000, respectively. Pursuant to the New Notes (i) Issuer shall pay interest to the holders thereof quarterly in kind (unless Issuer otherwise elects to pay interest to the holder quarterly in cash) on the principal amount of the New Notes at a rate equal to the daily simple Secured Overnight Financing Rate (SOFR) plus 7% per annum (subject to certain adjustments, as provided therein); (ii) the New Note’s maturity date is November 17, 2028, or such earlier date as the New Note is converted or required to be repaid as provided therein; (iii) the New Note is required to be senior to all the Issuer’s other indebtedness other than the permitted indebtedness as specified in the New Notes; (iv) all or any portion of the principal amount of the New Note, plus accrued and unpaid interest and any charges thereon, is voluntarily convertible at any time, in whole or in part, at the holder’s option, into shares of Common Stock, and are subject to mandatory conversion upon certain events, including a change of control transaction and certain financing transactions involving the Company, at a conversion price equal to the lower of (x) 50% of the Common Stock’s price per share as of market close on November 16, 2023, i.e., \$0.40 (the “Initial Conversion Price”) and (y) 50% of the Common Stock’s price per share as of the close of market on the trading date immediately prior to the date the holder delivers a notice of conversion (the “Updated Conversion Price”), subject to adjustments as set forth therein. Accordingly, on November 17, 2023, IBF I and IBF II acquired beneficial ownership of 1,875,000 shares of Common Stock and 4,125,000 shares of Common Stock, respectively, in each case, computed based on the Initial Conversion Price in the New Notes (collectively, the “New Notes Conversion Shares”).

In connection with the issuance of the New Notes, Issuer issued to IBF I and IBF II warrants (the “New Notes Warrants”) to purchase 2,812,500 shares of Common Stock and 6,187,500 shares of Common Stock, respectively (collectively, the “New Notes Warrant Shares”). Pursuant to the New Notes Warrants (i) the New Notes Warrants’ expiration date is November 17, 2028; (ii) the exercise price is equal to the lower of (x) 50% of the Common Stock’s price per share as of market close on November 16, 2023, i.e., \$0.40 and (y) 50% of the Common Stock’s price per share as of the close of market on the trading date immediately prior to the date the holder delivers a notice of exercise, subject to adjustments as set forth therein, which exercise may be on a cashless basis.

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Also on November 17, 2023, in connection with the New Notes, (i) Issuer, IBF I, IBF II and other investors entered into a Registration Rights Agreement (the “Registration Rights Agreement”) pursuant to which, among other things, Issuer undertook to file a registration statement, covering the resale of the New Notes Conversion Shares, New Notes Warrant Shares and other Registrable Securities (as defined in the Registration Rights Agreement) and (ii) Issuer, IBF I, IBF II and the other investors in the New Notes entered into a Subordination Agreement (the “Subordination Agreement”) pursuant to which, among other things, the holders of the New Notes agreed that the indebtedness under the New Notes shall be subordinated to the A&R Notes (as defined below).

*A&R Notes and New Warrants.* On November 17, 2023, Issuer, IBF I and IBF II also agreed to amend and restate the terms of the Senior Secured Convertible Promissory Notes issued by Issuer on August 7, 2023 (the “Original Notes”), to conform to the terms of the New Notes. As such, Issuer issued Amended and Restated Senior Secured Convertible Promissory Notes (the “A&R Notes”) to each of IBF I and IBF II, with a principal amount of \$1,500,000 and \$500,000, respectively, which A&R Notes replace the Original Notes. Accordingly, on November 17, 2023, as part of the reduction of the Initial Conversion Price, IBF I and IBF II beneficially own of 3,750,000 shares of Common Stock and 1,250,000 shares of Common Stock, respectively, in each case, computed based on the updated Initial Conversion Price in the A&R Notes (collectively, the “A&R Notes Conversion Shares”), in lieu of the 1,304,348 shares of Common Stock and 434,783 shares of Common Stock previously reported in the Statement.

In addition, as contemplated by the A&R Notes, on November 17, 2023, Issuer also issued to IBF I and IBF II warrants (the “A&R Notes Warrants”) to purchase 5,625,000 shares of Common Stock and 1,875,000 shares of Common Stock, respectively (collectively, the “A&R Notes Warrant Shares”) on the terms of the above-described New Notes Warrants.

*Side Letter Agreement.* On November 17, 2023, in connection with the New Notes, Issuer, IBF I, IBF II and other investors also entered into a Side Letter Agreement (New Notes) (the “SLA”) pursuant to which, among other things, (i) the Side Letter Agreement was amended, such that, in lieu of the right of such investors to invest the Uninvested Amount in Issuer pursuant to the Side Letter Agreement, the investors shall have the right (but not the obligation) to purchase senior convertible promissory notes of the Company on the same terms (including with respect to warrant coverage) of the New Notes in an amount equal to the Uninvested Amount (i.e., \$504,000 in the case of each of IBF I and IBF II), until the earliest of November 17, 2028, the date of consummation of a Change of Control Transaction and the date of consummation of a Financing Transaction (both as defined in the SLA) (the “SAFE Amount Option”), and (ii) the investors shall have the right (but not the obligation) to purchase senior convertible promissory notes of the Company on the same terms (including with respect to warrant coverage) of the New Notes in an amount equal to the principal amount of the New Notes (i.e., \$750,000 in the case of IBF I and \$1,650,000 in the case of IBF II), until the earliest of May 17, 2024, the date of consummation of a Change of Control Transaction and the date of consummation of a Financing Transaction (the “Loan Amount Option”).

Accordingly, should IBF I and IBF II timely exercise their (i) SAFE Amount Option, each of IBF I and IBF II will be entitled to be issued New Notes that are each convertible into 1,260,000 shares of Common Stock (collectively, the “SAFE Conversion Shares”) and Warrants that are each exercisable into 1,890,000 shares of Common Stock (collectively, the “SAFE Warrants Shares”) and, together with the SAFE Conversion Shares, the “SAFE Securities”), in each case, computed based on the Initial Conversion Price in the New Notes, and (ii) Loan Amount Option, each of IBF I and IBF II will be entitled to be issued New Notes that are convertible into 1,875,000 shares of Common Stock and 4,125,000 shares of Common Stock, respectively (collectively, the “Loan Conversion Shares”), and Warrants that are exercisable into 1,875,000 shares of Common Stock and 6,187,500 shares of Common Stock, respectively (collectively, the “Loan Warrants Shares”) and, together with the Loan Conversion Shares, the “Loan Securities”), in each case, computed based on the Initial Conversion Price in the New Notes.

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Item 5. Interest in Securities of the Issuer.

*Items 5(a)-(c) of the Statement are hereby amended by replacing them in their entirety with the following:*

The aggregate percentage of shares reported beneficially owned by each person named herein is based on 11,896,846 shares of Common Stock issued and outstanding as of November 17, 2023, according information received from the Issuer. Beneficial ownership below (i) is determined in accordance with the rules of the SEC, which generally provide that shares of Common Stock relating to convertible securities or warrants convertible or exercisable within 60 days are deemed outstanding for computing the percentage of the person holding such securities but are not deemed outstanding for computing the percentage of any other person, and (ii) does not account for interest and other charges on any of the convertible securities that may, at the option of Issuer, be convertible into shares of Common Stock.

(a), (b)

As of the close of business on November 17, 2023, IBF 1 beneficially owned 23,180,561 shares of Common Stock, representing approximately 68.6% of the outstanding shares of Common Stock. IBF I GP, by virtue of being the general partner of IBF I, may be deemed to beneficially own, and share the power to vote and dispose, such shares. For the sake of clarity, such 23,180,561 shares of Common Stock include the SAFE Securities and Loan Securities issuable to IBF I under the terms of the SLA.

As of the close of business on November 17, 2023, IBF 2 beneficially owned 27,559,308 shares of Common Stock, representing approximately 71.0% of the outstanding shares of Common Stock. IBF II GP, by virtue of being the general partner of IBF II, may be deemed to beneficially own, and share the power to vote and dispose, such shares. For the sake of clarity, such 27,559,308 shares of Common Stock include the SAFE Securities and Loan Securities issuable to IBF II under the terms of the SLA.

As of the close of business on November 17, 2023, IBF Management, by virtue of being the management company of each of IBF I GP and IBF II GP, may be deemed to beneficially own 50,739,869 shares of Common Stock, representing approximately 83.6% of the outstanding shares of Common Stock. For the sake of clarity, such 50,739,869 shares of Common Stock (i) include the SAFE Securities and Loan Securities issuable to IBF I and IBF II under the terms of the SLA and (ii) exclude any securities of the Issuer held by Dr. David Sidransky, Robert Spiegel, M.D. and Murray A. Goldberg, for which the Reporting Persons disclaim any beneficial ownership.

Information provided to the Reporting Persons indicates that none of the persons listed on Schedule A annexed hereto beneficially owned as of November 17, 2023 any shares of Common Stock, except as indicated in Schedule A.

(c) Except as set forth herein, none of the Reporting Persons effected any transactions in the shares of Common Stock in the 60 days preceding November 17, 2023. Information provided to the Reporting Persons indicates that none of the persons listed on Schedule A annexed hereto effected any transactions in the shares of Common Stock in the 60 days preceding November 17, 2023.

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*Item 7 of the Statement is hereby amended and supplemented to add the following exhibit:*

- 99.8 Form of A&R Notes (incorporated by reference to Exhibit 10.1 of the Issuer's Form 10-Q filed with the SEC on November 20, 2023).
  - 99.9 Form of New Notes (incorporated by reference to Exhibit 10.2 of the Issuer's Form 10-Q filed with the SEC on November 20, 2023).
  - 99.10 Form of New Notes Warrants (incorporated by reference to Exhibit 10.3 of the Issuer's Form 10-Q filed with the SEC on November 20, 2023).
  - 99.11 Form of A&R Notes Warrants (incorporated by reference to Exhibit 10.4 of the Issuer's Form 10-Q filed with the SEC on November 20, 2023).
  - 99.12 SLA (incorporated by reference to Exhibit 10.5 of the Issuer's Form 10-Q filed with the SEC on November 20, 2023).
  - 99.13 Subordination Agreement (incorporated by reference to Exhibit 10.6 of the Issuer's Form 10-Q filed with the SEC on November 20, 2023).
  - 99.14 Registration Rights Agreement (incorporated by reference to Exhibit 10.7 of the Issuer's Form 10-Q filed with the SEC on November 20, 2023).
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SIGNATURES

After reasonable inquiry and to the best of his knowledge and belief, the undersigned certifies that the information set forth in this statement is true, complete and correct.

Dated: November 21, 2023

Israel Biotech Fund I, L.P.

By: /s/ Yuval Cabilly

Name, Title: Yuval Cabilly, Managing Partner

Israel Biotech Fund II, L.P.

By: /s/ Yuval Cabilly

Name, Title: Yuval Cabilly, Managing Partner

Israel Biotech Fund GP Partners, L.P.

By: /s/ Yuval Cabilly

Name, Title: Yuval Cabilly, General Partner

Israel Biotech Fund GP Partners II, L.P.

By: /s/ Yuval Cabilly

Name, Title: Yuval Cabilly, General Partner

I.B.F Management Ltd.

/s/ Yuval Cabilly

Name, Title: Yuval Cabilly, Chief Executive Officer

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**SCHEDULE A**

**Directors and Officers of IBF Management**

**General**

<u>Name and Position</u>	<u>Principal Occupation</u>	<u>Principal Business Address</u>	<u>Citizenship</u>
Yuval Cabilly, Director & CEO	Managing Partner, IBF 1 and IBF 2	c/o IBF Management Ltd., 4 Oppenheimer St. Rehovot Israel	Israel
Aido Zairi, Director	Managing Partner, IBF 1 and IBF 2	c/o IBF Management Ltd., 4 Oppenheimer St. Rehovot Israel	Israel, U.S.
David Sidransky, Director	Managing Partner, IBF 1 and IBF 2	c/o IBF Management Ltd., 4 Oppenheimer St. Rehovot Israel	Israel, U.S.

**Beneficial Ownership of Directors and Officers of IBF Management**

Yuval Cabilly – None

Aido Zairi – None

David Sidransky – 93 shares of Common Stock (of which 46 shares are held by his son) and the following stock options:

<b>Exercise Price</b>	<b>Date Exercisable</b>	<b>Expiration Date</b>	<b>Number of Shares</b>
\$55.23	This option is fully vested and exercisable.	06/09/2031	2,342
\$8.7	This option vests and becomes exercisable on the earlier of (i) June 13, 2023 or (ii) one day prior to the Issuer's 2023 annual meeting of stockholders, subject to Mr. Sidransky's continued service with the Issuer through such vesting date.	06/12/2032	2,342
\$16,128	This option is fully vested and exercisable.	05/27/2025	17
\$15,372	This option is fully vested and exercisable.	11/04/2025	42
\$9,252	This option is fully vested and exercisable.	11/03/2026	25
\$3,828	This option is fully vested and exercisable.	11/01/2027	25
\$648	This option is fully vested and exercisable.	11/04/2028	25
\$24.8	This option is fully vested and exercisable.	10/23/2029	125
\$52.8	This option is fully vested and exercisable	05/03/2030	163