
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 6)*

Outlook Therapeutics, Inc.

(Name of Issuer)

Common Stock, par value \$0.01 per share

(Title of Class of Securities)

(CUSIP Number)

**GMS Ventures and Investments
Intertrust Corporate Services(Cayman)Ltd, 190 Elgin Avenue, George Town
Grand Cayman, E9, KYI-9007
962 6 582 7999**

**Gus Atiyah
Willkie Farr & Gallagher LLP, 787 Seventh Avenue
New York, NY, 10019-6099
(212) 728-8000**

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

05/28/2026

(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.

1 Name of reporting person
GMS Ventures & Investments
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 CAYMAN ISLANDS
Sole Voting Power

7
Number of Shares Beneficially Owned by Each Reporting Person With:

8 0.00
Shared Voting Power

9 37,580,638.00
Sole Dispositive Power

10 0.00
Shared Dispositive Power

11 37,580,638.00
Aggregate amount beneficially owned by each reporting person

12 Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

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

14 22.9 %
Type of Reporting Person (See Instructions)

IV

Comment for Type of Reporting Person: Comment relating to rows 8, 10, and 11: Includes warrants (the "Warrants") to purchase up to an aggregate of 15,488,570 shares of common stock, par value \$0.01 per share (the "Shares"), of Outlook Therapeutics, Inc., a Delaware corporation (the "Issuer"). Comment relating to row 13: This percentage is calculated based upon 148,587,119 Shares outstanding immediately following the May 2026 Offering (as defined below), based on the Issuer's prospectus supplement relating to the May 2026 Offering filed with the Securities and Exchange Commission (the "SEC") on May 29, 2026, plus 15,488,570 Shares underlying the Warrants.

SCHEDULE 13D

CUSIP No.

1 Name of reporting person
SUKHTIAN GHIATH M.
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 OO

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

6 Citizenship or place of organization

JORDAN

7 Sole Voting Power

Number of Shares Beneficially Owned by Each Reporting Person With: 8 0.00
Shared Voting Power 37,580,638.00

9 Sole Dispositive Power

10 0.00
Shared Dispositive Power 37,580,638.00

11 Aggregate amount beneficially owned by each reporting person 37,580,638.00

12 Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

13 Percent of class represented by amount in Row (11) 22.9 %

14 Type of Reporting Person (See Instructions) OO

Comment for Type of Reporting Person: Comment relating to rows 8, 10, and 11: Includes Warrants to purchase up to an aggregate of 15,488,570 Shares. Comment relating to row 13: This percentage is calculated based upon 148,587,119 Shares outstanding immediately following the May 2026 Offering, based on the Issuer's prospectus supplement relating to the May 2026 Offering filed with the SEC on May 29, 2026, plus 15,488,570 Shares underlying the Warrants.

SCHEDULE 13D

Item 1. Security and Issuer

Title of Class of Securities:

(a) Common Stock, par value \$0.01 per share

Name of Issuer:

(b) Outlook Therapeutics, Inc.

Address of Issuer's Principal Executive Offices:

(c) 111 S. Wood Avenue, Unit #100, ISELIN, NEW JERSEY , 08830.

Item 1 Comment: This Amendment No. 6 ("Amendment No. 6") to Schedule 13D supplements and amends the statement on Schedule 13D of GMS Ventures and Investments ("GMS Ventures") and Ghiath M. Sukhtian ("Sukhtian" and, together with GMS Ventures, the "Reporting Persons") originally filed with the SEC on July 7, 2022, as amended by Amendment No. 1 thereto, filed with the SEC on December 29, 2022, Amendment No. 2 thereto, filed with the SEC on March 20, 2024, Amendment No. 3 thereto, filed with the SEC on January 22, 2025, Amendment No. 4 thereto, filed with the SEC on March 12, 2025 and Amendment No. 5 thereto, filed with the SEC on May 28, 2025 (together, as so amended, the "Schedule 13D"). Except as otherwise specified in this Amendment No. 6, all items in the Schedule 13D remain unchanged. All capitalized terms used herein and not otherwise defined have the meanings ascribed to such terms in the Schedule 13D. The Reporting Persons are filing this Amendment No. 6 to report certain changes in

their beneficial ownership of Shares of the Issuer as a result of the May 2026 Offering, as defined and described in Item 4 of this Schedule 13D.

Item 3. Source and Amount of Funds or Other Consideration

The response to Item 3 in the Schedule 13D is hereby amended to add the following after the last paragraph: The source of funds for the purchases in the May 2026 Offering (as defined below) was the working capital of GMS Ventures and capital contributions made to GMS Ventures.

Item 4. Purpose of Transaction

Item 4 of the Schedule 13D is hereby amended to add the following after the last paragraph: On May 28, 2026, GMS Ventures entered into a securities purchase agreement with the Issuer (the "May 2026 SPA") pursuant to which the Issuer agreed to sell, and GMS Ventures agreed to purchase, 8,539,709 Shares at the price of \$0.5855 per Share, for an aggregate purchase price of approximately \$5.0 million in a registered direct offering (the "May 2026 Offering"), subject to customary closing conditions. The May 2026 Offering closed on May 29, 2026. In connection with the May 2026 Offering, on May 28, 2026, the Issuer entered into a warrant amendment agreement (the "May 2026 Warrant Amendment") with GMS Ventures pursuant to which the Issuer agreed to amend certain outstanding common stock warrants to purchase up to an aggregate of 15,488,570 shares of Common Stock previously issued to GMS Ventures in January 2025 and May 2025, with a weighted average exercise price of \$1.78 per share, effective upon the closing of the May 2026 Offering, such that the amended warrants have a reduced exercise price of \$0.5855 per share. Other than as described herein, the terms of the amended warrants remain unchanged.

Item 5. Interest in Securities of the Issuer

Item 5 of the Schedule 13D is hereby amended and restated in its entirety to read: The following disclosure is based upon 148,587,119 Shares outstanding immediately following the May 2026 Offering as of May 29, 2026, as set forth in the Issuer's Prospectus Supplement, as filed pursuant to Rule 424(b)(5), filed with the SEC on May 29, 2026, plus 15,488,570 Shares underlying the Warrants. As of the date hereof, GMS Ventures directly owns 22,092,068 Shares and 15,488,570 warrants to purchase Shares, representing a total of 37,580,638 Shares beneficially owned by GMS Ventures. This represents approximately 22.9% of the outstanding Shares, calculated pursuant to Rule 13d-3 under the Act. Sukhtian is the holder of a controlling interest in GMS Holdings, which is the sole owner of GMS Ventures. By virtue of such relationship, Sukhtian may be deemed to beneficially own the securities held by GMS Ventures for purposes of Rule 13d-3 under the Act. This represents approximately 22.9% of the outstanding Shares calculated pursuant to Rule 13d-3 under the Act.

- (a) GMS Ventures: 1. Sole power to vote or direct vote: 0 2. Shared power to vote or direct vote: 37,580,638 3. Sole power to dispose or direct the disposition: 0 4. Shared power to dispose or direct the disposition: 37,580,638
(b) Sukhtian: 1. Sole power to vote or direct vote: 0 2. Shared power to vote or direct vote: 37,580,638 3. Sole power to dispose or direct the disposition: 0 4. Shared power to dispose or direct the disposition: 37,580,638
(c) The transactions described in Item 4 are incorporated herein by reference. Except as described in Item 4, the Reporting Persons have not effected any transactions in Shares during the past sixty (60) days.
(d) Not applicable.
(e) Not applicable.

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

Item 6 of the Schedule 13D is hereby amended to add the following after the last paragraph: May 2026 Securities Purchase Agreement Item 4 above summarizes certain provisions of the May 2026 SPA and is incorporated herein by reference. The description of the May 2026 SPA does not purport to be complete and is qualified in its entirety by reference to the full text of the May 2026 SPA, the form of which is filed as Exhibit 6 to this Schedule 13D, and is incorporated herein by reference. May 2026 Warrant Amendment Item 4 above summarizes certain provisions of the May 2026 Warrant Amendment and is incorporated herein by reference. The description of the May 2026 Warrant Amendment does not purport to be complete and is qualified in its entirety by reference to the full text of the May 2026 Warrant Amendment, the form of which is filed as Exhibit 5 to this Schedule 13D, and is incorporated herein by reference.

Item 7. Material to be Filed as Exhibits.

Item 7 of the Schedule 13D is hereby supplemented as follows: Exhibit No. Description 1. Joint Filing Agreement, between Ghiath M. Sukhtian and GMS Ventures and Investments, dated June 1, 2026.* 2. Amended & Restated Investor Rights Agreement by and between Outlook Therapeutics, Inc. and GMS Ventures and Investments, dated as of April 21, 2022 (incorporated by reference to Exhibit 10.1 to the Issuer's Form 8-K, filed with the SEC on April 22, 2022). 3. Power of Attorney by Ghiath M. Sukhtian, dated as of December 30, 2019 (incorporated by reference to Exhibit 24.4 to the Form 4 filed by Ghiath M. Sukhtian with the SEC on January 29, 2020). 4. Power of Attorney by GMS Ventures and Investments, dated as of February 25, 2020 (incorporated by reference to Exhibit 24.1 to the Form 3 filed by GMS Ventures and Investments with the SEC on February 27, 2020). 5. Form of Warrant Amendment, dated as of May 28, 2026, by and between the Issuer and GMS Ventures (incorporated by reference to Exhibit 4.1 to the Issuer's Form 8-K, filed with the SEC on May 28, 2026). 6. Form of Securities Purchase Agreement, dated as of May 28, 2026, by and between the Issuer and GMS Ventures (incorporated by reference to Exhibit 10.1 to the Issuer's Form 8-K, filed with the SEC on May 28, 2026). * Filed herewith.

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.

GMS Ventures & Investments

Signature: /s/ Lawrence A. Kenyon

Name/Title: Lawrence A. Kenyon, Attorney-in-fact

Date: 06/01/2026

SUKHTIAN GHIATH M.

Signature: /s/ Lawrence A. Kenyon

Name/Title: Lawrence A. Kenyon, Attorney-in-fact

Date: 06/01/2026

JOINT FILING AGREEMENT

We, the undersigned, hereby agree that the attached Amendment No. 6 to the Schedule 13D, dated June 1, 2026, with respect to the common stock, par value \$0.01 per share, of Outlook Therapeutics, Inc. is, and any further amendments thereto signed by each of the undersigned shall be, filed on behalf of each of us pursuant to and in accordance with the provisions of Rule 13d-1(k) under the Securities and Exchange Act of 1934, as amended. Each of the undersigned agrees to be responsible for the timely filing of the Schedule 13D, and for the completeness and accuracy of the information concerning itself contained therein.

This agreement may be terminated with respect to the obligations to jointly file future amendments to such statement on Schedule 13D as to any of the undersigned upon such person giving written notice thereof to each of the other persons signatory hereto, at the principal office thereof.

This agreement supersedes any prior joint filing agreements by and among any of the undersigned with respect to the securities of Outlook Therapeutics, Inc.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the 1st day of June, 2026.

Dated: June 1, 2026

GMS Ventures and Investments

By:

/s/ Lawrence A. Kenyon

Name: Lawrence A. Kenyon

Title: Attorney-in-Fact

Ghiath M. Sukhtian

By:

/s/ Lawrence A. Kenyon

Name: Lawrence A. Kenyon

Title: Attorney-in-Fact