

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D

[Rule 13d-101]

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO § 24.13d-1(a) AND AMENDMENTS THERETO FILED PURSUANT TO § 240.13D-2(a)

(Amendment No. 1)*

Singular Genomics Systems, Inc.

(Name of Issuer)

Common Stock, par value \$0.0001 per share

(Title of Class of Securities)

82933R308

(CUSIP Number)

**David Clark
Elliot Press
Deerfield Management Company, L.P.
345 Park Avenue South, 12 Floor
New York, New York 10010
(212) 551-1600**

With a copy to:

**Jonathan D. Weiner, Esq.
Mark D. Wood, Esq.
Katten Muchin Rosenman LLP
50 Rockefeller Plaza
New York, New York 10020
(212) 940-8800**

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

October 31, 2024

(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.

(Continued on following pages)

(Page 1 of 8 Pages)

* 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).

1	NAMES OF REPORTING PERSONS Deerfield Mgmt IV, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 249,495 (1)
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 249,495 (1)
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 249,495 (1)	
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) 6.66%	
14	TYPE OF REPORTING PERSON PN	

(1) Comprised of (i) 166,162 shares of common stock and (ii) 83,333 shares of common stock issuable upon conversion of 2,500 shares of Series A Common Stock Equivalent Convertible Preferred Stock, in each case, held by Deerfield Private Design Fund IV, L.P. The terms of the Series A Common Stock Equivalent Convertible Preferred Stock restrict the conversion of such shares to the extent that, upon such conversion, the number of shares of common stock then beneficially owned by the holder and its affiliates and any other person or entities with which such holder would constitute a Section 13(d) "group" would exceed 4.9% of the total number of shares of common stock then outstanding (the "Ownership Cap"). Accordingly, notwithstanding the number of shares reported, the reporting person disclaims beneficial ownership of the shares of common stock issuable upon conversion of Series A Common Stock Equivalent Convertible Preferred Stock to the extent that upon such conversion the number of shares beneficially owned by all reporting persons hereunder, in the aggregate, would exceed the Ownership Cap.

1	NAMES OF REPORTING PERSONS Deerfield Private Design Fund IV, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS WC	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 249,495 (2)
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 249,495 (2)
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 249,495 (2)	
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) 6.66%	
14	TYPE OF REPORTING PERSON PN	

(2) Comprised of (i) 166,162 shares of common stock and (ii) 83,333 shares of common stock issuable upon conversion of 2,500 shares of Series A Common Stock Equivalent Convertible Preferred Stock. The terms of the Series A Common Stock Equivalent Convertible Preferred Stock restrict the conversion of such shares to the extent that, upon such conversion, the number of shares of common stock then beneficially owned by the holder and its affiliates and any other person or entities with which such holder would constitute a Section 13(d) "group" would exceed 4.9% of the total number of shares of common stock then outstanding (the "Ownership Cap"). Accordingly, notwithstanding the number of shares reported, the reporting person disclaims beneficial ownership of the shares of common stock issuable upon conversion of Series A Common Stock Equivalent Convertible Preferred Stock to the extent that upon such conversion the number of shares beneficially owned by all reporting persons hereunder, in the aggregate, would exceed the Ownership Cap.

1	NAMES OF REPORTING PERSONS Deerfield Management Company, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e) <input checked="" type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 249,495 (3)
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 249,495 (3)
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 249,495 (3)	
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) 6.66%	
14	TYPE OF REPORTING PERSON PN	

(3) Comprised of (i) 166,162 shares of common stock and (ii) 83,333 shares of common stock issuable upon conversion of 2,500 shares of Series A Common Stock Equivalent Convertible Preferred Stock, in each case, held by Deerfield Private Design Fund IV, L.P. The terms of the Series A Common Stock Equivalent Convertible Preferred Stock restrict the conversion of such shares to the extent that, upon such conversion, the number of shares of common stock then beneficially owned by the holder and its affiliates and any other person or entities with which such holder would constitute a Section 13(d) "group" would exceed 4.9% of the total number of shares of common stock then outstanding (the "Ownership Cap"). Accordingly, notwithstanding the number of shares reported, the reporting person disclaims beneficial ownership of the shares of common stock issuable upon conversion of Series A Common Stock Equivalent Convertible Preferred Stock to the extent that upon such conversion the number of shares beneficially owned by all reporting persons hereunder, in the aggregate, would exceed the Ownership Cap.

1	NAMES OF REPORTING PERSONS James E. Flynn	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States of America	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 249,495 (4)
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 249,495 (4)
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 249,495 (4)	
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) 6.66%	
14	TYPE OF REPORTING PERSON IN	

(4) Comprised of (i) 166,162 shares of common stock and (ii) 83,333 shares of common stock issuable upon conversion of 2,500 shares of Series A Common Stock Equivalent Convertible Preferred Stock, in each case, held by Deerfield Private Design Fund IV, L.P. The terms of the Series A Common Stock Equivalent Convertible Preferred Stock restrict the conversion of such shares to the extent that, upon such conversion, the number of shares of common stock then beneficially owned by the holder and its affiliates and any other person or entities with which such holder would constitute a Section 13(d) "group" would exceed 4.9% of the total number of shares of common stock then outstanding (the "Ownership Cap"). Accordingly, notwithstanding the number of shares reported, the reporting person disclaims beneficial ownership of the shares of common stock issuable upon conversion of Series A Common Stock Equivalent Convertible Preferred Stock to the extent that upon such conversion the number of shares beneficially owned by all reporting persons hereunder, in the aggregate, would exceed the Ownership Cap.

This Amendment No. 1 (this "Amendment") to Schedule 13D amends the Schedule 13D (the "Schedule 13D") filed by (i) Deerfield Mgmt IV, L.P. ("Deerfield Mgmt IV"), (ii) Deerfield Private Design Fund IV, L.P. ("Deerfield Private Design Fund IV"), (iii) Deerfield Management Company, L.P. ("Deerfield Management"), and (iv) James E. Flynn, a natural person ("Flynn") and collectively with Deerfield Mgmt IV, Deerfield Private Design Fund IV, Deerfield Management and Flynn, the "Reporting Persons", with respect to the common stock, par value \$0.0001 per share, of Singular Genomics Systems, Inc. Capitalized terms used and not otherwise defined in this Amendment have the meanings ascribed to them in the Schedule 13D.

Item 4. Purpose of Transaction.

Item 4 of the Schedule 13D is hereby amended by adding the following:

As previously disclosed, on September 5, 2024, Deerfield Private Design Fund IV, Deerfield Mgmt IV and Deerfield Management (collectively, "Deerfield") submitted a non-binding proposal (the "September 2024 Proposal") to the special committee of independent directors of the Company (the "Special Committee"). The September 2024 Proposal related to a proposed acquisition through a special purpose vehicle to be established by Deerfield of all of the outstanding shares of Common Stock not already owned by Deerfield or any other stockholders or members of management that Deerfield invites to "roll over" their current equity shares. Following negotiations with the Special Committee in a competitive process, Deerfield proposed an increased purchase price of \$24.00 per share (the Original Proposal, as so modified, the "Modified Proposal" and the transaction contemplated thereby, the "Modified Transaction"), and following such proposed increase, on October 31, 2024, the Company and Deerfield entered into an exclusivity agreement to facilitate completion of Deerfield's due diligence and the preparation and negotiation of definitive agreements in respect of the Modified Transaction.

Any definitive agreement entered into in connection with the Proposed Transaction would be subject to customary closing conditions, including stockholder approval. No assurance can be given that any definitive agreement will be entered into, that the Modified Transaction will be consummated, or that the Modified Transaction will be consummated on the terms contemplated by the Modified Proposal. Execution of a definitive agreement in respect of the Modified Transaction (upon the terms, including the price, contemplated by the Modified Proposal or at all) remains subject to satisfactory completion of confirmatory due diligence, among other things.

In furtherance of the Modified Proposal, the Reporting Persons and their affiliates and representatives expect to engage (or continue to engage, as applicable) in communications and discussions with the Company and members of the Special Committee and, with the permission of the Special Committee, management of the Company. Among other things, the Reporting Persons expect to respond to inquiries from, and negotiate the terms of the Modified Proposal with, the Special Committee and its representatives. The Reporting Persons also expect to engage in communications and discussions with other current or prospective stockholders of the Company, potential co-investors and financing sources (including current or potential investors in funds managed by Deerfield), investment and financing professionals, industry analysts and other knowledgeable industry or market observers and participants, potential commercial and strategic partners, and other interested parties regarding the Modified Transaction and/or the matters contemplated by the Modified Proposal (including, in the case of existing stockholders and management, equity rollovers), and may exchange information with such persons pursuant to appropriate confidentiality or similar agreements.

The Reporting Persons do not currently intend to or provide updated or additional disclosures regarding the Modified Proposal or the Modified Transaction unless and until a definitive agreement has been reached, unless disclosure is otherwise required under applicable U.S. securities laws.

The Modified Proposal may result in one or more of the transactions, events or actions specified in clauses (a) through (j) of Item 4 of Schedule 13D, including, without limitation, an acquisition of additional securities of the Issuer, an extraordinary corporate transaction (such as a merger) involving the Company, delisting of the Common Stock of from the Nasdaq Capital Market and other material changes in the Company's business or corporate structure.

Except for the foregoing, none of the Reporting Persons has any plans or proposals which relate to, or would result in, any of the matters referred to in paragraphs (a) through (j) of Item 4 of Schedule 13D. The Reporting Persons may, at any time and from time to time, formulate other purposes, plans or proposals regarding the Issuer, or any other actions that could involve one or more of the types of transactions or have one or more of the results described in paragraphs (a) through (j) of Item 4 of Schedule 13D.

SIGNATURE

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

Dated: November 1, 2024

DEERFIELD MGMT IV, L.P.
By: J.E. Flynn Capital IV, LLC, General Partner

By: /s/ Jonathan Isler
Name: Jonathan Isler
Title: Attorney-in-Fact

DEERFIELD PRIVATE DESIGN FUND IV, L.P.
By: Deerfield Mgmt IV, L.P., General Partner
By: J.E. Flynn Capital IV, LLC, General Partner

By: /s/ Jonathan Isler
Name: Jonathan Isler
Title: Attorney-in-Fact

DEERFIELD MANAGEMENT COMPANY, L.P.

By: Flynn Management LLC, General Partner

By: /s/ Jonathan Isler
Name: Jonathan Isler
Title: Attorney-in-Fact

JAMES E. FLYNN

/s/ Jonathan Isler
Jonathan Isler, Attorney-in-Fact