

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

FORM S-4

REGISTRATION STATEMENT  
UNDER THE SECURITIES ACT OF 1933

**HealthCor Catalio Acquisition Corp.\***  
(Exact name of registrant as specified in its charter)

**Cayman Islands\***  
(State or other jurisdiction of  
incorporation or organization)

**6770**  
(Primary Standard Industrial  
Classification Code Number)

**98-1569027**  
(I.R.S. Employer  
Identification No.)

**55 Hudson Yards, 28th Floor**  
**New York, NY 10001**  
**(212) 622-7800**

(Address, including zip code, and telephone number, including area code, of registrant’s principal executive offices)

**Arthur Cohen**  
**55 Hudson Yards, 28th Floor**  
**New York, NY 10001**  
**(212) 622-7800**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

*Copies of all communications, including communications sent to agent for service, should be sent to:*

**Sean T. Wheeler, P.C.**  
**Debbie P. Yee, P.C.**  
**Kirkland & Ellis LLP**  
**609 Main Street**  
**Houston, TX 77002**  
**(713) 836-3600**

**Christian O. Nagler**  
**Kirkland & Ellis LLP**  
**601 Lexington Avenue**  
**New York, NY 10022**  
**(212) 446-4800**

**Michael L. Fantozzi, Esq.**  
**John P. Condon, Esq.**  
**Mintz, Levin, Cohn, Ferris, Glovsky**  
**and Popeo, P.C.**  
**One Financial Center**  
**Boston, MA 02111**  
**(617) 542-6000**

**Approximate date of commencement of proposed sale of the securities to the public:** As soon as practicable after this registration statement becomes effective and all other conditions to the transactions contemplated by the Business Combination Agreement described in the included proxy statement/prospectus have been satisfied or waived.

If the securities being registered on this form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, please check the following box.

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the “Securities Act”), check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.  Registration No. 333-259148

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company” and “emerging growth company” in Rule 12b-2 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). (Check one):

- |                         |                                     |                           |                                     |
|-------------------------|-------------------------------------|---------------------------|-------------------------------------|
| Large accelerated filer | <input type="checkbox"/>            | Accelerated filer         | <input type="checkbox"/>            |
| Non-accelerated filer   | <input checked="" type="checkbox"/> | Smaller reporting company | <input checked="" type="checkbox"/> |
|                         |                                     | Emerging growth company   | <input checked="" type="checkbox"/> |

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

If applicable, place an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13c-4(i) (Cross-Border Issuer Tender Offer)

Exchange Act Rule 14d-1(d) (Cross-Border Third-Party Tender Offer)

**CALCULATION OF REGISTRATION FEE**

<b>Title of Each Class of Security To Be Registered</b>	<b>Amount To Be Registered</b>	<b>Proposed Maximum Offering Price Per Unit</b>	<b>Proposed Maximum Aggregate Offering Price</b>	<b>Amount of Registration Fee</b>
Class B Common Stock, par value \$0.0001 per share <sup>(2)(3)(5)</sup>	40,592	\$ 9.97 <sup>(1)</sup>	\$ 404,702.24 <sup>(1)</sup>	\$ 37.52 <sup>(1)</sup>
Class A Common Stock issuable upon the conversion of Class B Common Stock <sup>(2)(4)(5)</sup>	40,592	— <sup>(6)</sup>	— <sup>(6)</sup>	— <sup>(6)</sup>
<b>Total</b>			<b>\$ 404,702.24</b>	<b>\$ 37.52</b>

- (1) Estimated solely for the purpose of calculating the registration fee, based on the average of the high and low prices of the Class A ordinary shares, par value \$0.0001 (the “Class A ordinary shares”), of the Registrant on the Nasdaq Capital Market on December 15, 2021 (\$9.97 per share) in accordance with Rule 457(c) and Rule 457(f)(1) under the Securities Act of 1933, as amended (the “Securities Act”). For purposes of calculating the registration fee, the Class B common stock, par value \$0.0001 per share (the “Class B common stock”), is treated as having the same value as the Class A common stock, par value \$0.0001 per share (the “Class A common stock”), as each share of Class B common stock is convertible into one share of Class A common stock.
- (2) The Registrant previously registered an aggregate of 86,961,594 shares of its common stock, which includes (i) 31,975,473 shares of Class A common stock estimated to be issued by the Registrant to stockholders of Hyperfine, Inc. (“Hyperfine”) in connection with the business combination described in the Prior Registration Statement (defined below) (the “Business Combination”); (ii) 3,482,425 shares of Class A common stock estimated to be issued by the Registrant to stockholders of Liminal Sciences, Inc. (“Liminal”) in connection with the Business Combination; (iii) 21,314,000 shares of Class A common stock issuable by the Registrant upon conversion of 21,314,000 Class A ordinary shares in connection with the Domestication (defined below); (iv) 5,175,000 shares of Class A common stock issuable by the Registrant upon conversion of 5,175,000 shares of Class B common stock in connection with the Business Combination (including 5,175,000 shares of Class B common stock issuable by the Registrant upon conversion of 5,175,000 Class B ordinary shares, par value \$0.0001, in connection with the Domestication); (v) 15,014,696 shares of Class B common stock estimated to be issued by the Registrant to certain stockholders of Hyperfine and Liminal in connection with the Business Combination (including 15,014,696 shares of Class A common stock issuable by the Registrant upon the conversion of such shares of Class B common stock); and (vi) 10,000,000 shares of Class A common stock that may be issuable by the Registrant as earn-out consideration under the Business Combination Agreement as described in its Registration Statement on Form S-4, as amended (File No. 333-259148) (the “Prior Registration Statement”), which was declared effective by the Securities and Exchange Commission on November 26, 2021.
- (3) In accordance with Rule 462(b) under the Securities Act, 40,592 additional shares of Class B common stock to be issued by the Registrant to certain stockholders of Hyperfine and Liminal in connection with the Business Combination are hereby registered.
- (4) In accordance with Rule 462(b) under the Securities Act, 40,592 additional shares of Class A common stock issuable by the Registrant upon the conversion of 40,592 additional shares of Class B common stock to certain stockholders of Hyperfine and Liminal as described in footnote 3 above are hereby registered.
- (5) Pursuant to Rule 416(a) of the Securities Act, there are also being registered an indeterminable number of additional securities as may be issued to prevent dilution resulting from share splits, share dividends or similar transactions.
- (6) Pursuant to Rule 457(i) promulgated under the Securities Act, no separate registration fee is required.

**This registration statement will become effective automatically upon filing with the Securities and Exchange Commission pursuant to Rule 462(b) under the Securities Act of 1933, as amended.**

- \* Prior to the consummation of the business combination described herein, HealthCor Catalio Acquisition Corp. (“HealthCor”) intends to effect a deregistration under Part XII of the Cayman Islands Companies Act (As Revised) and a domestication under Section 388 of the Delaware General Corporation Law, pursuant to which HealthCor’s jurisdiction of incorporation will be changed from the Cayman Islands to the State of Delaware (the “Domestication”). All securities being registered will be issued by the continuing entity following the Domestication, which will be renamed “Hyperfine, Inc.” in connection with the business combination described herein (“New Hyperfine”). As used in this Registration Statement, the term “Registrant” refers to HealthCor (a Cayman Islands exempted company), prior to the Domestication, and to HealthCor (a Delaware corporation), following the Domestication.

## EXPLANATORY NOTE

Pursuant to its Registration Statement on Form S-4 (Registration No. 333-259148) (the “Prior Registration Statement”), declared effective as of November 26, 2021, HealthCor Catalio Acquisition Corp. (the “Registrant”) registered an aggregate of 86,961,594 shares of its common stock, which includes (i) 31,975,473 shares of Class A common stock, par value \$0.0001 per share (“Class A common stock”), estimated to be issued by the Registrant to stockholders of Hyperfine, Inc. (“Hyperfine”) in connection with the business combination described in the Prior Registration Statement (the “Business Combination”); (ii) 3,482,425 shares of Class A common stock estimated to be issued by the Registrant to stockholders of Liminal Sciences, Inc. (“Liminal”) in connection with the Business Combination; (iii) 21,314,000 shares of Class A common stock issuable by the Registrant upon conversion of 21,314,000 Class A ordinary shares, par value \$0.0001, of the Registrant in connection with the deregistration under Part XII of the Cayman Islands Companies Act (As Revised) and a domestication under Section 388 of the Delaware General Corporation Law, pursuant to which the Registrant’s jurisdiction of incorporation will be changed from the Cayman Islands to the State of Delaware (the “Domestication”); (iv) 5,175,000 shares of Class A common stock issuable by the Registrant upon conversion of 5,175,000 shares of Class B common stock, par value \$0.0001 per share (“Class B common stock”), of the Registrant in connection with the Business Combination (including 5,175,000 shares of Class B common stock issuable by the Registrant upon conversion of 5,175,000 Class B ordinary shares, par value \$0.0001, in connection with the Domestication); (v) 15,014,696 shares of Class B common stock estimated to be issued by the Registrant to certain stockholders of Hyperfine and Liminal in connection with the Business Combination (including 15,014,696 shares of Class A common stock issuable by the Registrant upon the conversion of such shares of Class B common stock); and (vi) 10,000,000 shares of Class A common stock that may be issuable by the Registrant as earn-out consideration under the Business Combination Agreement as described in its Prior Registration Statement and paid an aggregate fee of \$94,422.68. The Registrant is filing this Registration Statement on Form S-4 pursuant to General Instruction K to Form S-4 and Rule 462(b) of the Securities Act of 1933, as amended, solely to register 40,592 additional shares of Class B common stock for issuance in connection with the consummation of the Business Combination contemplated by the Business Combination Agreement, dated as of July 7, 2021, by and among the Registrant, Optimus Merger Sub I, Inc., a Delaware corporation and wholly owned subsidiary of the Registrant, Optimus Merger Sub II, Inc., a Delaware corporation and wholly owned subsidiary of the Registrant, Hyperfine and Liminal, as well as 40,592 additional shares of Class A common stock issuable upon the conversion of the 40,592 additional shares of Class B common stock. In connection with the registration of additional shares of its common stock, the Registrant is paying an additional registration fee of \$37.52.

## STATEMENT OF INCORPORATION BY REFERENCE

This Registration Statement incorporates by reference the contents of the Prior Registration Statement, including all amendments, supplements and exhibits thereto and all information incorporated or deemed to be incorporated by reference therein. Additional opinions and consents required to be filed with this Registration Statement are listed on the Exhibit Index included with this Registration Statement.

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**PART II**  
**INFORMATION NOT REQUIRED IN PROSPECTUS**

**Exhibit Index**

<b>Exhibit Number</b>	<b>Description</b>
<a href="#">5.1*</a>	<a href="#">Opinion of Kirkland &amp; Ellis LLP</a>
<a href="#">23.1*</a>	<a href="#">Consent of Marcum LLP</a>
<a href="#">23.2*</a>	<a href="#">Consent of Deloitte &amp; Touche LLP</a>
<a href="#">23.3*</a>	<a href="#">Consent of Kirkland &amp; Ellis LLP (included in Exhibit 5.1).</a>
<a href="#">24.1**</a>	<a href="#">Power of Attorney.</a>

\* Filed herewith.

\*\* Previously filed with the Registrant's Registration Statement on Form S-4 (No. 333-259148), as amended, which was initially filed with the Securities and Exchange Commission on August 30, 2021.

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**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, State of New York, this 20th day of December, 2021.

**HEALTHCOR CATALIO ACQUISITION CORP.**

By: /s/ Arthur Cohen

Name: Arthur Cohen

Title: Chief Executive Officer and Director

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Arthur Cohen</u> Arthur Cohen	Chief Executive Officer and Director (Principal Executive Officer)	December 20, 2021
<u>*</u> Christine Clarke	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	December 20, 2021
<u>*</u> Joseph Healey	Chairman	December 20, 2021
<u>*</u> Benjamin Snedeker	Director	December 20, 2021
<u>*</u> Dr. Kenan Turnacioglu	Director	December 20, 2021
<u>*</u> Michael Weinstein	Director	December 20, 2021
<u>*</u> Dr. Christopher Wolfgang	Director	December 20, 2021
<u>*</u> Taylor Harris	Director	December 20, 2021

\*By /s/ Arthur Cohen

Arthur Cohen

Attorney-in-fact

**KIRKLAND & ELLIS LLP**  
AND AFFILIATED PARTNERSHIPS

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December 20, 2021

HealthCor Catalio Acquisition Corp.  
55 Hudson Yards, 28th Floor  
New York, New York 10001

Ladies and Gentlemen:

We have acted as special legal counsel to HealthCor Catalio Acquisition Corp., a Cayman Islands exempted company ("**HealthCor**"), in connection with the Registration Statement on Form S-4 (the "**462(b) Registration Statement**") filed by HealthCor with the U.S. Securities and Exchange Commission (the "**Commission**") pursuant to Rule 462(b) of the Securities Act of 1933, as amended (the "**Act**"). The 462(b) Registration Statement relates to the registration of 40,592 shares of Class B common stock, par value \$0.0001 per share (the "**Class B common stock**"), of New Hyperfine (as defined below) and 40,592 shares of Class A common stock, par value \$0.0001 per share, of New Hyperfine issuable upon the conversion of the Class B common stock (collectively, the "**Shares**"). The Shares, together with the securities registered pursuant to a Registration Statement on Form S-4 (File No. 333-259148) of HealthCor that was declared effective on November 26, 2021 (the "**Initial Registration Statement**" and, together with the 462(b) Registration Statement, the "**Registration Statement**") are to be issued pursuant to the Business Combination Agreement, dated July 7, 2021, by and among HealthCor, Optimus Merger Sub I, Inc., a Delaware corporation and wholly owned subsidiary of HealthCor, Optimus Merger Sub II, Inc., a Delaware corporation and wholly owned subsidiary of HealthCor, Hyperfine, Inc., a Delaware corporation, and Liminal Sciences, Inc., a Delaware corporation (the "**Business Combination Agreement**"). Pursuant to the Business Combination Agreement, among other things, HealthCor will change its jurisdiction of incorporation to Delaware (the "**Domestication**") pursuant to Part XII of the Companies Law (Revised) of the Cayman Islands and domesticate as a Delaware corporation in accordance with Section 388 of the General Corporation Law of the State of Delaware (the "**DGCL**"). We refer herein to HealthCor following effectiveness of the Domestication as "**New Hyperfine**." This opinion is being rendered in connection with the registration under the 462(b) Registration Statement of the Shares.

In connection with the preparation of this opinion, we have, among other things, read:

- (a) a copy of the Business Combination Agreement, filed as Exhibit 2.1 to the Initial Registration Statement;
- (b) the Initial Registration Statement;
- (c) the 462(b) Registration Statement;
- (d) the form of proposed certificate of incorporation of New Hyperfine, to be filed with the Secretary of State of the State of Delaware, in the form filed as Exhibit 3.2 (Annex C) to the Initial Registration Statement;

Bay Area Beijing Boston Chicago Dallas Hong Kong London Los Angeles Munich New York Paris Shanghai Washington, D.C.

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## KIRKLAND & ELLIS LLP

HealthCor Catalio Acquisition Corp.

December 20, 2021

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- (e) the form of proposed Bylaws of New Hyperfine, to be adopted by New Hyperfine in connection with the Domestication, in the form filed as Exhibit 3.3 (Annex D) to the Initial Registration Statement;
- (f) the form of proposed certificate of corporate domestication of HealthCor, to be filed with the Secretary of State of the State of Delaware; and
- (g) such other documents, records and other instruments as we have deemed necessary or appropriate in order to deliver the opinions set forth herein.

For purposes of this opinion, we have assumed the authenticity of all documents submitted to us as originals, the conformity to the originals of all documents submitted to us as copies and the authenticity of the originals of all documents submitted to us as copies. We have also assumed the legal capacity of all natural persons, the genuineness of the signatures of persons signing all documents in connection with which this opinion is rendered, the authority of such persons signing on behalf of the parties thereto and the due authorization, execution and delivery of all documents by the parties thereto other than HealthCor. We have not independently established or verified any facts relevant to the opinion expressed herein, but have relied upon statements and representations of officers and other representatives of HealthCor and others as to factual matters. Subject to the assumptions, qualifications, exclusions and other limitations which are identified in this opinion, we advise you that when issued in accordance with terms and conditions set forth in the Registration Statement and the Business Combination Agreement, the Shares will be duly authorized, validly issued, fully paid and non-assessable.

Our opinions expressed above are subject to the qualifications that we express no opinion as to the applicability of, compliance with, or effect of (i) any bankruptcy, insolvency, reorganization, fraudulent transfer, fraudulent conveyance, moratorium or other similar law or judicially developed doctrine in this area (such as substantive consolidation or equitable subordination) affecting the enforcement of creditors' rights generally, (ii) general principles of equity (regardless of whether enforcement is considered in a proceeding in equity or at law), (iii) an implied covenant of good faith and fair dealing, (iv) public policy considerations which may limit the rights of parties to obtain certain remedies, (v) any requirement that a claim with respect to any security denominated in other than U.S. dollars (or a judgment denominated in other than U.S. dollars in respect of such claim) be converted into U.S. dollars at a rate of exchange prevailing on a date determined in accordance with applicable law, (vi) governmental authority to limit, delay or prohibit the making of payments outside of the United States or in a foreign currency or currency unit and (vii) any laws except the DGCL. We advise you that issues addressed by this letter may be governed in whole or in part by other laws, but we express no opinion as to whether any relevant difference exists between the laws upon which our opinions are based and any other laws which may actually govern. We do not find it necessary for the purposes of this opinion, and accordingly we do not purport to cover herein, the application of the securities or "Blue Sky" laws of the various states to the issuance of the Shares.

This opinion is limited to the specific issues addressed herein, and no opinion may be inferred or implied beyond that expressly stated herein. We assume no obligation to revise or supplement this opinion should the present laws of the DGCL be changed by legislative action, judicial decision or otherwise.

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**KIRKLAND & ELLIS LLP**

HealthCor Catalio Acquisition Corp.  
December 20, 2021  
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We hereby consent to the filing of this opinion with the Commission as Exhibit 5.1 to the 462(b) Registration Statement. In giving this consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission.

Very truly yours,

/s/ Kirkland & Ellis LLP  
KIRKLAND & ELLIS LLP

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**INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT**

We consent to the incorporation by reference in this Registration Statement of HealthCor Catalio Acquisition Corp. on Form S-4 pursuant to Rule 462(b) under the Securities Act of 1933, as amended, of our report dated March 26, 2021 with respect to our audit of the financial statements of HealthCor Catalio Acquisition Corp. as of December 31, 2020 and for the period from November 18, 2020 (inception) through December 31, 2020, which report appears in the Prospectus, which is part of the Registration Statement on Form S-4 as filed (File No. 333-259148). We also consent to the reference to our Firm under the heading "Experts" in such Prospectus that is incorporated by reference in this Registration Statement.

/s/ Marcum LLP  
Marcum LLP

New York, NY  
December 20, 2021

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**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in this Registration Statement on Form S-4 of our report dated July 19, 2021, relating to the combined financial statements of Hyperfine, Inc. and Liminal Sciences, Inc., appearing in Registration Statement No. 333-259148 on Form S-4 of HealthCor Catalio Acquisition Corp (“Prior Registration Statement”). We also consent to the reference to us under the heading “Experts” in such Prior Registration Statement incorporated herein by reference.

/s/ Deloitte & Touche LLP  
New York, New York  
December 20, 2021

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