As filed with the Securities and Exchange Commission on November 9, 2026

Registration No. 333-

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

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Hyperfine, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**98-1569027**
(State or other jurisdiction of incorporation or organization)	**(IRS Employer Identification No.)**

351 New Whitfield Street
Guilford, Connecticut 06437
Telephone: (866) 796-6767
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Maria Sainz
President and Chief Executive Officer
Hyperfine, Inc.
351 New Whitfield Street
Guilford, Connecticut 06437
Telephone: (866) 796-6767
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:
Michael L. Fantozzi, Esq.
Anne L. Bruno, Esq.
Samantha M. Silver, Esq.
Mintz, Levin, Cohn, Ferris,
Glovsky and Popeo, P.C.
One Financial Center
Boston, Massachusetts 02111
Telephone: (617) 542-6000

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement as determined by the registrant.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box: ☐

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, 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, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) 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. ☐

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. ☐

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. ☐

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 Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

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. ☐

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933, AS AMENDED, OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

EXPLANATORY NOTE

This registration statement contains two prospectuses:

- a base prospectus which covers the offering, issuance and sale by us of up to $150,000,000 in the aggregate of the securities identified above from time to time in one or more offerings; and
- a sales agreement prospectus supplement covering the offering, issuance and sale by us of up to a maximum aggregate offering price of $50,000,000 of shares of our Class A common stock that may be issued and sold from time to time under an amended and restated sales agreement with B. Riley Securities, Inc., or B. Riley, and BTIG, LLC, or BTIG, and together with B. Riley, the Sales Agents.

The base prospectus immediately follows this explanatory note. The specific terms of any securities to be offered pursuant to the base prospectus will be specified in a prospectus supplement to the base prospectus. The sales agreement prospectus supplement immediately follows the base prospectus. The $50,000,000 of Class A common stock that may be offered, issued and sold under the sales agreement prospectus supplement is included in the $150,000,000 of securities that may be offered, issued and sold by us under the base prospectus. Upon termination of the sales agreement with the Sales Agents, any portion of the $50,000,000 included in the sales agreement prospectus supplement that is not sold pursuant to the sales agreement will be available for sale in other offerings pursuant to the base prospectus and a corresponding prospectus supplement, and if no shares are sold under the sales agreement, the full $150,000,000 of securities may be sold in other offerings pursuant to the base prospectus and a corresponding prospectus supplement subject to any applicable limitations set forth herein and therein.

This registration statement is being filed to replace the registrant's existing registration statement on Form S-3 (File No. 333-275449), which was declared effective on November 22, 2023 and is scheduled to expire on November 22, 2026 pursuant to Rule 415(a)(5) under the Securities Act. This registration statement registers an aggregate offering amount of $150,000,000, and includes a sales agreement prospectus supplement covering a maximum aggregate offering amount of $50,000,000 of Class A common stock under the Sales Agreement, which is consistent with the existing registration statement.

SUBJECT TO COMPLETION, DATED NOVEMBER 9, 2026

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE OR OTHER JURISDICTION WHERE THE OFFER OR SALE IS NOT PERMITTED.

PROSPECTUS

Hyperfine, Inc.



$150,000,000

CLASS A COMMON STOCK
PREFERRED STOCK
DEBT SECURITIES
WARRANTS
RIGHTS
UNITS

This prospectus will allow us to issue, from time to time at prices and on terms to be determined at or prior to the time of one or more offerings, up to $150,000,000 of any combination of the securities described in this prospectus, either individually or in units. We may also offer Class A common stock or preferred stock upon conversion of or exchange for the debt securities; Class A common stock upon conversion of or exchange for the preferred stock; Class A common stock or preferred stock or debt securities upon the exercise of warrants or rights; or any combination of these securities.

This prospectus describes the general terms of these securities and the general manner in which these securities will be offered. We will provide you with the specific terms of any offering in one or more supplements to this prospectus. The prospectus supplements will also describe the specific manner in which these securities will be offered and may also supplement, update or amend information contained in this document. You should read this prospectus and any prospectus supplement, as well as any documents incorporated by reference into this prospectus or any prospectus supplement, carefully before you invest.

Our securities may be sold directly by us to you, through agents designated from time to time or to or through underwriters or dealers. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution" in this prospectus and in the applicable prospectus supplement. If any underwriters, dealers or agents are involved in the sale of our securities with respect to which this prospectus is being delivered, the names of such underwriters, dealers or agents and any applicable fees, commissions or discounts and over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds that we expect to receive from such sale will also be set forth in a prospectus supplement.

Our Class A common stock is listed on The Nasdaq Global Market under the symbol "HYPR." On November 4, 2026, the last reported sale price of our Class A common stock was $0.7503 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing, if any, on The Nasdaq Global Market or any securities market or other securities exchange of the securities covered by the prospectus supplement. Prospective purchasers of our securities are urged to obtain current information as to the market prices of our securities, where applicable.

Investing in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should consider carefully the risks that we have described on page 5 of this prospectus under the caption "Risk Factors." We may also include specific risk factors in supplements to this prospectus under the caption "Risk Factors." This prospectus may not be used to sell our securities unless accompanied by a prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2026.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, utilizing a "shelf" registration process. Under this shelf registration process, we may offer shares of our Class A common stock or preferred stock, various series of debt securities and/or warrants or rights to purchase any of such securities, either individually or in units, in one or more offerings, with a total value of up to $150,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering.

This prospectus does not contain all of the information included in the registration statement. For a more complete understanding of the offering of the securities, you should refer to the registration statement, including its exhibits. The prospectus supplement may also add, update or change information contained or incorporated by reference in this prospectus. However, no prospectus supplement will offer a security that is not registered and described in this prospectus at the time of its effectiveness. This prospectus, together with the applicable prospectus supplements and the documents incorporated by reference into this prospectus, includes all material information relating to the offering of securities under this prospectus. You should carefully read this prospectus, the applicable prospectus supplement, the information and documents incorporated herein by reference and the additional information under the headings "Where You Can Find More Information" and "Incorporation of Documents by Reference" before making an investment decision.

You should rely only on the information we have provided or incorporated by reference in this prospectus or any prospectus supplement. We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained or incorporated by reference in this prospectus. You must not rely on any unauthorized information or representation. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus or any prospectus supplement is accurate only as of the date on the front of the document and that any information we have incorporated herein by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any sale of a security.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to the registration statement of which this prospectus is a part or to any document that is incorporated by reference in this prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

This prospectus may not be used to consummate sales of our securities, unless it is accompanied by a prospectus supplement. To the extent there are inconsistencies between any prospectus supplement, this prospectus and any documents incorporated by reference, the document with the most recent date will control.

Unless the context otherwise requires, "Hyperfine," "HYPR," the "Company," "we," "us," "our" and similar terms refer to Hyperfine, Inc. and our subsidiaries.

PROSPECTUS SUMMARY

The following is a summary of what we believe to be the most important aspects of our business and the offering of our securities under this prospectus. We urge you to read this entire prospectus, including the more detailed consolidated financial statements, notes to the consolidated financial statements and other information incorporated by reference from our other filings with the SEC or included in any applicable prospectus supplement. Investing in our securities involves risks. You should carefully consider the risk factors set forth in any prospectus supplements and in our most recent annual and quarterly filings with the SEC, as well as other information in this prospectus and any prospectus supplements and the documents incorporated by reference herein or therein, before purchasing our securities. Each of the risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities.

The Company

We are an innovative health technology business with a mission to revolutionize patient care globally through accessible, affordable, clinically relevant artificial intelligence, or AI, powered portable ultra-low-field, or ULF, magnetic resonance, or MR, brain imaging. Our Swoop® Portable MR Imaging® System, or the Swoop® system, produces high-quality images at a significantly lower magnetic field strength than conventional magnetic resonance imaging, or MRI, scanners. Our Swoop® system is designed to transform brain MR for the patient, the clinician and the provider, enabling a highly differentiated patient-friendly experience, timely imaging for clinicians, and favorable economics for healthcare administrators. The Swoop® system is a portable, ULF MRI device for producing images that display the internal structures of the head where full diagnostic examination is not clinically practical. When interpreted by a trained physician, these images provide information that can be useful in determining a diagnosis. Healthcare professionals can use the Swoop® system efficiently to make effective clinical diagnoses and decisions in various care settings where conventional MRI devices are inaccessible and/or when they are not readily available. The portable design of our Swoop® system makes it safely and readily accessible anywhere in a hospital, clinic, physician's office, or patient care site and it does not require any special facilities accommodations. The easy to use, iPad-based interface makes its operation easy to learn and it does not require specialized MRI technicians to operate safely. ULF MR does not expose patients to harmful ionizing radiation and compares favorably in this regard to X-ray computed tomography or positron emission tomography.

The Swoop® system is the first U.S. Food and Drug Administration ("FDA")-cleared portable, ULF, MR brain imaging system that is capable of providing imaging at multiple sites of care, such as intensive care units, emergency departments, procedural rooms, clinics or physicians' offices, and can inform the timely detection, diagnosis, monitoring, and treatment of acute and chronic neurological conditions inside and outside the hospital. Our Swoop® system received initial 510(k) clearance for brain imaging from the FDA in 2020. In May 2025, we received 510(k) clearance from the FDA for our tenth-generation AI-powered software, Optive AI™. Also in May 2025, we achieved an important milestone and received 510(k) clearance from the FDA for our next-generation Swoop® scanner powered by Optive AI™ software. In December 2025, we received FDA clearance for the eleventh-generation AI-powered software, and in August 2026, we received FDA clearance for the latest Optive AI™ software update for the Swoop® system.

Outside of the United States, the first-generation Swoop® system has received marketing authorization for brain imaging in several countries, including the European Union ("CE Mark"), the United Kingdom (UK Conformity Assessment ("UKCA Mark")), Canada, Australia, New Zealand and India. In October 2024 and February 2025, we received CE Mark and UKCA Mark approval for the ninth-generation of software, respectively. In August 2025, we received both CE Mark and UKCA Mark approvals for our Optive AI™ software. In March 2026, we achieved an important milestone and received both CE Mark and UKCA Mark approval for both the next-generation Swoop® scanner and the eleventh-generation Optive AI™ software. In October 2026, the Company received CE Mark and UKCA Mark approvals for the latest Optive AI™ software. In

December 2025, the Company received regulatory approval in India from the Central Drugs Standard Control Organization, authorizing commercialization of the first-generation Swoop® system throughout India. The Company's Optive AI™ software is currently available in the United States, Canada, United Kingdom, Europe, Australia, New Zealand and India markets and the next-generation Swoop® system is currently available in the United States and European markets.

Additional Information

For additional information related to our business and operations, please refer to the reports incorporated herein by reference, including our Annual Report on Form 10-K for the year ended December 31, 2025, as described under the caption "Incorporation of Documents by Reference" on page 31 of this prospectus.

Our Corporate Information

We were originally incorporated as a Cayman Islands exempted company in 2020 under the name HealthCor Catalio Acquisition Corp. ("HealthCor"). On December 21, 2021, HealthCor domesticated as a Delaware corporation. On December 22, 2021, HealthCor completed a business combination (the "Business Combination") with Hyperfine, Inc. ("Legacy Hyperfine"), a Delaware corporation incorporated in February 2014, and Liminal Sciences, Inc. ("Liminal"), a Delaware corporation incorporated in September 2018. As a result, Legacy Hyperfine and Liminal became our wholly owned subsidiaries, HealthCor changed its name to "Hyperfine, Inc." and the business of Legacy Hyperfine and Liminal became our business.

Our principal executive offices are located at 351 New Whitfield Street, Guilford, Connecticut 06437, and our telephone number is (866) 796-6767. We maintain a website at http://www.hyperfine.io, to which we regularly post copies of our press releases as well as additional information about us. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

All trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners. Use or display by us of other parties' trademarks, trade dress, or products in this prospectus is not intended to, and does not, imply a relationship with, or endorsements or sponsorship of, us by the trademark or trade dress owners.

Offerings under this Prospectus

Under this prospectus, we may offer shares of our Class A common stock or preferred stock, various series of debt securities, or warrants or rights to purchase any of such securities, either individually or in units, with a total value of up to $150,000,000, from time to time at prices and on terms to be determined by market conditions at the time of the offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- maturity, if applicable;
- rates and times of payment of interest or dividends, if any;
- redemption, conversion or sinking fund terms, if any;
- voting or other rights, if any; and
- conversion or exercise prices, if any.

The prospectus supplement also may add, update or change information contained in this prospectus or in documents we have incorporated by reference into this prospectus. However, no prospectus supplement will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness.

We may sell the securities directly to investors or to or through agents, underwriters or dealers. We, and our agents or underwriters, reserve the right to accept or reject all or part of any proposed purchase of securities. If we offer securities through agents or underwriters, we will include in the applicable prospectus supplement:

- the names of those agents or underwriters;
- applicable fees, discounts and commissions to be paid to them;
- details regarding over-allotment options, if any; and
- the net proceeds to us.

This prospectus may not be used to consummate a sale of any securities unless it is accompanied by a prospectus supplement.

RISK FACTORS

Investing in our securities involves significant risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in Hyperfine. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the heading "Risk Factors" in the applicable prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under the heading "Risk Factors" included in our most recent Annual Report on Form 10-K, as revised or supplemented by our subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K that we have filed with the SEC, all of which are incorporated herein by reference, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference in this prospectus include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that relate to future events or to our future operations or financial performance. Any forward-looking statement involves known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to differ materially from any future results, levels of activity, performance or achievements expressed or implied by such forward-looking statement. Words such as, but not limited to, "believe," "expect," "anticipate," "estimate," "intend," "may," "plan," "potential," "predict," "project," "targets," "likely," "will," "would," "could," "should," "continue," "scheduled," and similar expressions or phrases, or the negative of those expressions or phrases, are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Although we believe that we have a reasonable basis for each forward-looking statement contained or incorporated by reference in this prospectus, we caution you that these statements are based on our projections of the future that are subject to known and unknown risks and uncertainties and other important factors that may cause our actual results, level of activity, performance or achievements expressed or implied by any forward-looking statement to differ materially from those expressed or implied by any forward-looking statement. The sections in our periodic reports, including our Annual Report on Form 10-K for the fiscal year ended December 31, 2025, entitled "Business," "Risk Factors," and "Management's Discussion and Analysis of Financial Condition and Results of Operations," as well as other sections in this prospectus and the documents or reports incorporated by reference in this prospectus, discuss some of the factors that could contribute to these differences. These forward-looking statements include, among other things, statements about:

- the success, cost and timing of our product development activities;
- the commercialization and adoption of our existing products and the success of our future product offerings;
- the potential attributes and benefits of our products and services;
- our ability to obtain and maintain regulatory approval for our products, and any related restrictions and limitations of any approved product;
- our ability to identify, in-license or acquire additional technology;
- our ability to maintain our existing licensing, manufacturing and supply agreements;
- our ability to compete with other companies currently marketing or engaged in the development of magnetic resonance imaging technologies, many of which have greater financial and marketing resources than us;
- the size and growth potential of the markets for our products and services, and the ability of our products and services to serve those markets, either alone or in partnership with others;
- the pricing of our products and services and reimbursement for medical procedures conducted using our products and services;
- changes in applicable laws or regulations;
- our history of losses and our ability to continue as a going concern;
- our estimates regarding expenses, revenue, capital requirements and needs for additional financing;
- our ability to raise financing in the future and the effects of future raises;
- our indebtedness under our Loan and Security Agreement with Horizon Technology Finance Corporation and our ability to comply with the covenants and other terms therein;

- our financial performance;
- our success in retaining or recruiting, or changes required in, our officers, key employees or directors;
- intense competition and competitive pressures from other companies in the industry in which we operate;
- market conditions and global and economic factors, such as inflation, geopolitical conflicts and instability;
- our intellectual property rights;
- the effect of legal, tax and regulatory changes;
- National Institutes of Health funding pressures; and
- the effect of U.S. export controls and tariffs.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important cautionary statements in this prospectus or in the documents incorporated by reference in this prospectus, particularly in the "Risk Factors" section, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. For a summary of such factors, please refer to the section entitled "Risk Factors" in this prospectus, as updated and supplemented by the discussion of risks and uncertainties under "Risk Factors" contained in any supplements to this prospectus and in our most recent Annual Report on Form 10-K, as revised or supplemented by our subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, as well as any amendments thereto, as filed with the SEC and which are incorporated herein by reference. The information contained in this document is believed to be current as of the date of this document. We do not intend to update any of the forward-looking statements after the date of this document to conform these statements to actual results or to changes in our expectations, except as required by law.

In light of these assumptions, risks and uncertainties, the results and events discussed in the forward-looking statements contained in this prospectus or in any document incorporated herein by reference might not occur. Investors are cautioned not to place undue reliance on the forward-looking statements, which speak only as of the date of this prospectus or the date of the document incorporated by reference in this prospectus. We are not under any obligation, and we expressly disclaim any obligation, to update or alter any forward-looking statements, whether as a result of new information, future events or otherwise. All subsequent forward-looking statements attributable to us or to any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section.

USE OF PROCEEDS

Unless otherwise indicated in the applicable prospectus supplement, we intend to use any net proceeds from the sale of securities under this prospectus for our commercial activities, including commercialization, manufacturing development and regulatory clearance of our products, research and development, and for other general corporate purposes, including for working capital, intellectual property protection and enforcement, capital expenditures, investments, acquisitions and collaborations. We have not determined the amounts we plan to spend on any of the areas listed above or the timing of these expenditures. As a result, our management will have broad discretion to allocate the net proceeds, if any, we receive in connection with securities offered pursuant to this prospectus for any purpose. Pending application of the net proceeds as described above, we may initially invest the net proceeds in short-and intermediate-term, interest-bearing obligations, investment grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

PLAN OF DISTRIBUTION

We may offer securities under this prospectus from time to time pursuant to public offerings through one or more placement agents or underwriters, negotiated transactions, block trades or a combination of these methods. We may sell the securities (1) through underwriters or dealers, (2) through agents or (3) directly to one or more purchasers, or through a combination of such methods. We may distribute the securities from time to time in one or more transactions at:

- a fixed price or prices, which may be changed from time to time;
- market prices prevailing at the time of sale;
- prices related to the prevailing market prices; or
- negotiated prices.

We may directly solicit offers to purchase the securities being offered by this prospectus. We may also designate agents to solicit offers to purchase the securities from time to time, and may enter into arrangements for "at-the-market," equity line or similar transactions. We will name in a prospectus supplement any underwriter or agent involved in the offer or sale of the securities.

If we utilize a dealer in the sale of the securities being offered by this prospectus, we will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

If we utilize an underwriter in the sale of the securities being offered by this prospectus, we will execute an underwriting agreement with the underwriter at the time of sale, and we will provide the name of any underwriter in the prospectus supplement which the underwriter will use to make resales of the securities to the public. In connection with the sale of the securities, we, or the purchasers of the securities for whom the underwriter may act as agent, may compensate the underwriter in the form of underwriting discounts or commissions. The underwriter may sell the securities to or through dealers, and the underwriter may compensate those dealers in the form of discounts, concessions or commissions.

With respect to underwritten public offerings, negotiated transactions and block trades, we will provide in the applicable prospectus supplement information regarding any compensation we pay to underwriters, dealers or agents in connection with the offering of the securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers. Underwriters, dealers and agents participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act, and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act, or to contribute to payments they may be required to make in respect thereof.

If so indicated in the applicable prospectus supplement, we will authorize underwriters, dealers or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in each applicable prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in each applicable prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will not be subject to any conditions except that:

- the purchase by an institution of the securities covered under that contract shall not at the time of delivery be prohibited under the laws of the jurisdiction to which that institution is subject; and

- if the securities are also being sold to underwriters acting as principals for their own account, the underwriters shall have purchased such securities not sold for delayed delivery. The underwriters and other persons acting as our agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

One or more firms, referred to as "remarketing firms," may also offer or sell the securities, if a prospectus supplement so indicates, in connection with a remarketing arrangement upon their purchase. Remarketing firms will act as principals for their own accounts or as our agents. These remarketing firms will offer or sell the securities in accordance with the terms of the securities. Each prospectus supplement will identify and describe any remarketing firm and the terms of its agreement, if any, with us and will describe the remarketing firm's compensation. Remarketing firms may be deemed to be underwriters in connection with the securities they remarket. Remarketing firms may be entitled under agreements that may be entered into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

Certain underwriters may use this prospectus and any accompanying prospectus supplement for offers and sales related to market-making transactions in the securities. These underwriters may act as principal or agent in these transactions, and the sales will be made at prices related to prevailing market prices at the time of sale. Any underwriters involved in the sale of the securities may qualify as "underwriters" within the meaning of Section 2(a)(11) of the Securities Act. In addition, the underwriters' commissions, discounts or concessions may qualify as underwriters' compensation under the Securities Act and the rules of the Financial Industry Regulatory Authority, Inc., or FINRA.

Shares of our Class A common stock sold pursuant to the registration statement of which this prospectus is a part will be authorized for listing and trading on The Nasdaq Global Market. The applicable prospectus supplement will contain information, where applicable, as to any other listing, if any, on The Nasdaq Global Market or any securities market or other securities exchange of the securities covered by the prospectus supplement. Underwriters may make a market in our Class A common stock, but will not be obligated to do so and may discontinue any market making at any time without notice. We can make no assurance as to the liquidity of or the existence, development or maintenance of trading markets for any of the securities.

In order to facilitate the offering of the securities, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involve the sale by persons participating in the offering of more securities than we sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing the applicable security in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if the securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

The underwriters, dealers and agents may engage in other transactions with us, or perform other services for us, in the ordinary course of their business.

DESCRIPTION OF SHARES

The following is a brief description of the material provisions of our shares. Our shares of Class A common stock are the only class of our securities registered pursuant to Section 12 of the Exchange Act. The following description of our shares does not purport to be complete and is subject to and qualified in its entirety by our Certificate of Incorporation, as amended, or our Charter, our Amended and Restated Bylaws, or our Bylaws, each of which is incorporated by reference as an exhibit to the registration statement of which this prospectus is a part, and certain provisions of Delaware law. We encourage you to read our Charter, our Bylaws and the applicable provisions of Delaware law for more information.

Authorized and Outstanding Shares

Our Charter authorizes the issuance of up to 628,000,000 shares, consisting of:

- 600,000,000 shares of Class A common stock, par value $0.0001 per share, or the Class A common stock;
- 27,000,000 shares of Class B common stock, par value $0.0001 per share, or the Class B common stock; and
- 1,000,000 shares of preferred stock, par value $0.0001 per share, or the preferred stock.

As of September 30, 2026, we had (i) 91,143,884 shares of Class A common stock outstanding and approximately 86 stockholders of record, and (ii) 15,055,288 shares of Class B common stock outstanding, all of which are held by a member of our Board of Directors, or the Board, Jonathan M. Rothberg, Ph.D., and his affiliates.

Class A Common Stock

Voting Rights

Holders of Class A common stock are entitled to cast one vote per share. Generally, holders of all classes of common stock vote together as a single class, and an action is approved by stockholders if a majority of votes cast affirmatively or negatively on the action are cast in favor of the action. In any election by stockholders of directors other than in a contested election, directors are elected by the affirmative vote of a majority of the votes cast in favor of or against the election of a nominee, while in a contested election, directors are elected by a plurality of the votes cast. Holders of Class A common stock are not entitled to cumulate their votes in the election of directors.

Dividend Rights

With limited exceptions in the case of certain stock dividends or disparate dividends approved by the affirmative vote of the holders of a majority of the Class A common stock and Class B common stock, each voting separately as a class, holders of Class A common stock will share ratably (based on the number of shares of Class A common stock held), together with each holder of Class B common stock, if and when any dividend is declared by the Board out of funds legally available therefor, subject to restrictions, whether statutory or contractual (including with respect to any outstanding indebtedness), on the declaration and payment of dividends and to any restrictions on the payment of dividends imposed by the terms of any outstanding preferred stock or any class or series of stock having a preference over, or the right to participate with, the Class A common stock with respect to the payment of dividends.

Liquidation, Dissolution and Winding Up

On the liquidation, dissolution, distribution of assets or winding up of Hyperfine, each holder of Class A common stock, together with each holder of Class B common stock, will be entitled, *pro rata* on a per share

basis, to all assets of Hyperfine of whatever kind available for distribution to the holders of common stock, subject to the designations, preferences, limitations, restrictions and relative rights of any other class or series of preferred stock of Hyperfine then outstanding and unless disparate or different treatment of the shares of Class A common stock and Class B common stock is approved by the affirmative vote of the holders of a majority of the outstanding shares of Class A common stock and Class B common stock, each voting separately as a class.

Other Matters

Holders of shares of Class A common stock do not have subscription, redemption or conversion rights. All of the outstanding shares of Class A common stock are validly issued, fully paid and non-assessable.

Class B Common Stock

Voting Rights

Holders of Class B common stock are entitled to cast 20 votes per share of Class B common stock. Generally, holders of all classes of our common stock vote together as a single class, and an action is approved by our stockholders if a majority of votes cast affirmatively or negatively on the action are cast in favor of the action. In any election by stockholders of directors other than in a contested election, directors are elected by the affirmative vote of a majority of the votes cast in favor of or against the election of a nominee, while in a contested election, directors are elected by a plurality of the votes cast. Holders of Class B common stock will not be entitled to cumulate their votes in the election of directors.

Dividend Rights

With limited exceptions in the case of certain stock dividends or disparate dividends approved by the affirmative vote of the holders of a majority of the Class A common stock and Class B common stock, each voting separately as a class, holders of Class B common stock will share ratably (based on the number of shares of Class B common stock held), together with each holder of Class A common stock, if and when any dividend is declared by the Board out of funds legally available therefor, subject to restrictions, whether statutory or contractual (including with respect to any outstanding indebtedness), on the declaration and payment of dividends and to any restrictions on the payment of dividends imposed by the terms of any outstanding preferred stock or any class or series of stock having a preference over, or the right to participate with, the Class B common stock with respect to the payment of dividends.

Optional Conversion

Holders of Class B common stock have the right to convert shares of their Class B common stock into fully paid and non-assessable shares of Class A common stock, on a one-to-one basis, at the option of the holder at any time upon written notice to us.

Mandatory Conversion

Holders of Class B common stock can have their shares of Class B common stock automatically converted into shares of Class A common stock, on a one-to-one basis, upon the occurrence of any of the events described below:

(1) Any sale, assignment, transfer, conveyance, hypothecation, or other transfer or disposition, directly or indirectly, of any shares of Class B common stock or any legal or beneficial interest in such shares, whether or not for value and whether voluntary or involuntary or by operation of law (including by merger, consolidation, or otherwise), including, without limitation, the transfer of shares of Class B common stock to a broker or other nominee or the transfer of, or entering into a binding agreement with respect to, voting control over such shares by proxy or otherwise, other than a permitted transfer.

(2) Upon the first date on which Dr. Rothberg, together with all other qualified stockholders, collectively cease to beneficially own at least 20% of the number of shares of Class B common stock (as such number of shares is equitably adjusted in respect of any reclassification, stock dividend, subdivision, combination, or recapitalization of the Class B common stock) collectively beneficially owned by Dr. Rothberg and permitted transferees of Class B common stock as of the closing of the business combination on December 22, 2021.

(3) Upon the date specified by the affirmative vote of the holders of at least two-thirds (2/3) of the outstanding shares of Class B common stock, voting as a separate class.

(4) On December 22, 2028.

Liquidation, Dissolution and Winding Up

On the liquidation, dissolution, distribution of assets or winding up of Hyperfine, each holder of Class B common stock, together with each holder of Class A common stock, will be entitled, *pro rata* on a per share basis, to all assets of Hyperfine of whatever kind available for distribution to the holders of common stock, subject to the designations, preferences, limitations, restrictions and relative rights of any other class or series of preferred stock of Hyperfine then outstanding and unless disparate or different treatment of the shares of Class A common stock and Class B common stock is approved by the affirmative vote of the holders of a majority of the outstanding shares of Class A common stock and Class B common stock, each voting separately as a class.

Preferred Stock

Our Charter provides that the Board has the authority, without action by the stockholders, to designate and issue shares of preferred stock in one or more classes or series, and the number of shares constituting any such class or series, and to fix the voting powers, designations, preferences, limitations, restrictions and relative rights of each class or series of preferred stock, including, without limitation, dividend rights, conversion rights, voting rights, redemption privileges and liquidation preferences. There are no shares of preferred stock currently outstanding.

The purpose of authorizing the Board to issue preferred stock and determine the rights and preferences of any classes or series of preferred stock is to eliminate delays associated with a stockholder vote on specific issuances. The simplified issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or could discourage a third party from seeking to acquire, a majority of our outstanding voting stock. Additionally, the issuance of preferred stock may adversely affect the holders of our common stock by restricting dividends on our common stock, diluting the voting power of our common stock or subordinating the dividend or liquidation rights of our common stock. As a result of these or other factors, the issuance of preferred stock could have an adverse impact on the market price of our common stock.

Exclusive Forum

Our Charter provides that, to the fullest extent permitted by law, unless we otherwise consent in writing, the Court of Chancery, or the Chancery Court, of the State of Delaware (or, in the event that the Chancery Court does not have jurisdiction, the federal district court for the District of Delaware or other state courts of the State of Delaware) shall be the sole and exclusive forum for (1) any derivative action or proceeding brought on behalf of Hyperfine, (2) any action asserting a claim of breach of a fiduciary duty owed by, or any other wrongdoing by, any current or former director, officer, other employee or stockholder of Hyperfine, (3) any action asserting a claim against us arising pursuant to any provision of the Delaware General Corporation Law, or the DGCL, our Charter or Bylaws, or as to which the DGCL confers jurisdiction on the Chancery Court, (4) any action to interpret, apply, enforce or determine the validity of any provisions of our Charter or Bylaws, or (5) any other action asserting a claim governed by the internal affairs doctrine. Notwithstanding the foregoing, the federal

district courts of the United States shall be the exclusive forum for the resolution of any action, suit or proceeding asserting a cause of action arising under the Securities Act and the provisions of our Charter described above will not apply to claims arising under the Exchange Act or other federal securities laws for which there is exclusive federal jurisdiction.

Anti-Takeover Effects of Provisions of our Charter, Bylaws and Applicable Law

Certain provisions of our Charter, Bylaws, and laws of the State of Delaware, where we are incorporated, may discourage or make more difficult a takeover attempt that a stockholder might consider in his or her best interest. These provisions may also adversely affect prevailing market prices for the Class A common stock and the Class B common stock. We believe that the benefits of increased protection give us the potential ability to negotiate with the proponent of an unsolicited proposal to acquire or restructure us and outweigh the disadvantage of discouraging those proposals because negotiation of the proposals could result in an improvement of their terms.

Authorized but Unissued Shares

Delaware law does not require stockholder approval for any issuance of authorized shares. However, the listing requirements of Nasdaq, which apply so long as the Class A common stock remains listed on Nasdaq, require stockholder approval of certain issuances equal to or exceeding 20% of the then outstanding voting power or then outstanding number of shares of common stock. Additional shares that may be issued in the future may be issued for a variety of corporate purposes, including future public offerings, to raise additional capital, or to facilitate acquisitions. The existence of authorized but unissued and unreserved common stock and preferred stock could make more difficult or discourage an attempt to obtain control of Hyperfine by means of a proxy contest, tender offer, merger, or otherwise.

Dual Class Stock

Our Charter provides for a dual class common stock structure which provides Dr. Rothberg with the ability to control the outcome of matters requiring stockholder approval, even though he owns significantly less than a majority of the shares of our outstanding common stock, including the election of directors and significant corporate transactions, such as a merger or other sale of Hyperfine or its assets.

Blank Check Preferred Stock

Our Charter provides for 1,000,000 authorized shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable the Board to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, the Board were to determine that a takeover proposal is not in the best interests of Hyperfine or its stockholders, the Board could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our Charter grants the Board broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of the holders of shares of common stock and may have the effect of delaying, deterring or preventing a change in control of Hyperfine.

Number of Directors

Our Charter and Bylaws provide that, subject to any rights of holders of preferred stock to elect additional directors under specified circumstances, the number of directors may be fixed from time to time solely pursuant to a resolution adopted by the Board; provided, however, that prior to the first date on which the issued and

outstanding shares of Class B common stock represent less than 50% of the voting power of the then outstanding shares of our capital stock that would be entitled to vote for the election of directors at an annual meeting of stockholders, unless approved by the holders of a majority in voting power of the shares of our capital stock that would then be entitled to vote in the election of directors at an annual meeting or by written consent, the number of directors may not exceed nine.

Requirements for Advance Notification of Stockholder Meetings, Nominations and Proposals

Our Bylaws establish advance notice procedures with respect to stockholder proposals and nomination of candidates for election as directors, other than nominations made by or at the direction of the Board or a committee of the Board. In order to be "properly brought" before a meeting, a stockholder will have to comply with advance notice requirements and provide us with certain information. Generally, to be timely, a stockholder's notice must be delivered to, or mailed and received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary of the immediately preceding annual meeting of stockholders. Our Bylaws also specify requirements as to the form and content of a stockholder's notice. Our Bylaws allow the chairperson of the meeting at a meeting of the stockholders to determine whether a proposal to the meeting was properly brought and to adopt rules and regulations for the conduct of meetings, except to the extent inconsistent with such rules, regulations and procedures as adopted by the Board, which may have the effect of precluding the conduct of certain business at a meeting if the rules and regulations are not followed. These provisions may also defer, delay, or discourage a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to influence or obtain control of Hyperfine.

Limitations on Stockholder Action by Written Consent

Our Charter provides that, subject to the terms of any series of our preferred stock, any action required or permitted to be taken by our stockholders must be effected at an annual or special meeting of the stockholders and may not be effected by written consent in lieu of a meeting; provided, however, that prior to the first date on which the issued and outstanding shares of Class B common stock represent less than 50% of the voting power of the then outstanding shares of our capital stock that would then be entitled to vote for the election of directors, any action required or permitted to be taken at any annual or special meeting of our stockholders, may be taken by written consent if such written consent is signed by the holders of the outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote on such matter were present and voted.

Amendment of our Charter and Bylaws

The DGCL provides generally that the affirmative vote of a majority of the outstanding shares entitled to vote thereon, voting together as a single class, is required to amend a corporation's certificate of incorporation, unless the certificate of incorporation requires a greater percentage.

Our Charter provides that it may be amended by us in the manner provided therein or prescribed by statute. Our Charter provides that the affirmative vote of the holders of a majority of the voting power of the then-outstanding shares of our capital stock entitled to vote generally in the election of directors, voting together as a single class, will be required to amend or repeal any provision of our Charter, or adopt any provision of our Charter inconsistent therewith.

If any of the Class B common stock shares are outstanding, in addition to any vote required by Delaware law, the affirmative vote of the holders of two-thirds (2/3) of the outstanding shares of Class B common stock, voting as a separate class, is required to amend our Charter (1) in a manner that changes any of the voting, conversion, dividend or liquidation provisions of the shares of Class B common stock, (2) to provide for each share of Class A common stock or any preferred stock to have more than one vote per share or any rights to a

separate class vote of the holders of shares of Class A common stock other than as provided by our Charter or required by the DGCL, or (3) to otherwise adversely impact the rights, powers, preferences or privileges of the shares of Class B common stock in a manner that is disparate from the manner in which it affects the rights, powers, preferences or privileges of the shares of Class A common stock.

If any shares of Class A common stock are outstanding, we will not, without the prior affirmative vote of the holders of a majority of the outstanding shares of Class A common stock, voting as a separate class, in addition to any other vote required by applicable law or our Charter, directly or indirectly, whether by amendment, or through merger, recapitalization, consolidation or otherwise amend, alter, change, repeal or adopt any provision of our Charter (1) in a manner that is inconsistent with, or that otherwise alters or changes the powers, preferences, or special rights of the shares of Class A common stock so as to affect them adversely; or (2) to provide for each share of Class B common stock to have more than 20 votes per share or any rights to a separate class vote of the holders of shares of Class B common stock other than as provided by our Charter or required by the DGCL.

Our Charter also provides that the Board will have the power to adopt, amend, alter, or repeal our Bylaws by the affirmative vote of a majority of the directors present at any regular or special meeting of the Board at which a quorum is present in any manner not inconsistent with the laws of the State of Delaware or our Charter. Our stockholders are prohibited from adopting, amending, altering, or repealing Bylaws, or adopting any provision inconsistent with our Bylaws, unless such action is approved, in addition to any other vote required by our Charter, (i) when the issued and outstanding shares of Class B common stock represent less than 50% of the voting power of the then outstanding shares of capital stock that would be entitled to vote for the election of directors, the affirmative vote of the holders of at least two-thirds of the voting power of the capital stock that would be entitled to vote in the election of directors or, prior to such time, (ii) the affirmative vote of the holders of a majority of the voting power of the shares of capital stock that would be entitled to vote in the election of directors.

Business Combinations

Under Section 203 of the DGCL, a corporation will not be permitted to engage in a business combination with any interested stockholder for a period of three years following the time that such interested stockholder became an interested stockholder, unless:

(1) prior to such time the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

(2) upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

(3) at or subsequent to such time the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2⁄3% of the outstanding voting stock which is not owned by the interested stockholder.

Generally, a "business combination" includes a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. Subject to certain exceptions, an "interested stockholder" is a person who, together with that person's affiliates and associates, owns, or within the previous three years owned, 15% or more of Hyperfine's outstanding voting stock. For purposes of this section only, "voting stock" has the meaning given to it in Section 203 of the DGCL.

Since we have not opted out of Section 203 of the DGCL, it will apply to us. As a result, this provision will make it more difficult for a person who would be an "interested stockholder" to effect various business combinations with us for a three-year period. This provision may encourage companies interested in acquiring us to negotiate in advance with the Board because the stockholder approval requirement would be avoided if the Board approves either the business combination or the transaction which results in the stockholder becoming an interested stockholder. These provisions also may have the effect of preventing changes in the Board and may make it more difficult to accomplish transactions which stockholders may otherwise deem to be in their best interests.

Cumulative Voting

Under Delaware law, the right to vote cumulatively does not exist unless the charter specifically authorizes cumulative voting. Our Charter does not authorize cumulative voting.

Limitations on Liability and Indemnification of Officers and Directors

Pursuant to Section 102(b)(7) of the DGCL, our Charter eliminates the personal liability of our directors or officers to us or our stockholders for monetary damages for breach of fiduciary duty as a director or officer, except for liability (i) for any breach of a director's or officer's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) of directors under Section 174 of the DGCL, (iv) for any transaction from which the director or officer derived an improper personal benefit, or (v) of officers in any action by or in the right of the corporation.

Our Charter provides that we may indemnify and advance expenses to our directors, officers, employees or agents to the fullest extent permitted by law. Our Bylaws provide that we shall indemnify and advance expenses to our directors and officers to the fullest extent authorized by the DGCL. We are also expressly authorized to carry directors' and officers' liability insurance providing indemnification for our directors, officers, and certain employees for some liabilities. We believe that these indemnification and advancement provisions and insurance are useful to attract and retain qualified directors and executive officers.

The limitation of liability, advancement and indemnification provisions in our Charter and Bylaws may discourage stockholders from bringing lawsuits against directors or officers for any alleged breach of their fiduciary duty. These provisions also may have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, your investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Corporate Opportunities

Our Charter provides for the renouncement by us of any interest or expectancy of Hyperfine in, or being offered an opportunity to participate in any matter, transaction, or interest that is presented to, or acquired, created, or developed by, or which otherwise comes into possession of, any director of Hyperfine who is not an employee of Hyperfine or any of its subsidiaries, unless such matter, transaction, or interest is presented to, or acquired, created, or developed by, or otherwise comes into the possession of a director of Hyperfine expressly and solely in that director's capacity as a director of Hyperfine.

Dissenters' Rights of Appraisal and Payment

Under the DGCL, with certain exceptions, our stockholders will have appraisal rights in connection with a merger or consolidation of Hyperfine. Pursuant to the DGCL, stockholders who properly request and perfect appraisal rights in connection with such merger or consolidation will have the right to receive payment of the fair value of their shares as determined by the Delaware Court of Chancery.

Stockholders' Derivative Actions

Under the DGCL, any of our stockholders may bring an action in our name to procure a judgment in our favor, also known as a derivative action, provided that the stockholder bringing the action is a holder of our shares at the time of the transaction to which the action relates or such stockholder's stock thereafter devolved by operation of law.

Transfer Agent and Registrar

The transfer agent and registrar for our Class A common stock is Continental Stock Transfer & Trust Company.

Stock Exchange Listing

Our Class A common stock is listed for trading on The Nasdaq Global Market under the symbol "HYPR."

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplements, summarizes the material terms and provisions of the debt securities that we may offer under this prospectus. While the terms we have summarized below will apply generally to any future debt securities we may offer pursuant to this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. If we so indicate in a prospectus supplement, the terms of any debt securities offered under such prospectus supplement may differ from the terms we describe below, and to the extent the terms set forth in a prospectus supplement differ from the terms described below, the terms set forth in the prospectus supplement shall control.

We may sell from time to time, in one or more offerings under this prospectus, debt securities, which may be senior or subordinated. We will issue any such senior debt securities under a senior indenture that we will enter into with a trustee to be named in the senior indenture. We will issue any such subordinated debt securities under a subordinated indenture, which we will enter into with a trustee to be named in the subordinated indenture. We have filed forms of these documents as exhibits to the registration statement, of which this prospectus is a part. We use the term "indentures" to refer to either the senior indenture or the subordinated indenture, as applicable. The indentures will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act, as in effect on the date of the indenture. We use the term "debenture trustee" to refer to either the trustee under the senior indenture or the trustee under the subordinated indenture, as applicable.

The following summaries of material provisions of the senior debt securities, the subordinated debt securities and the indentures are subject to, and qualified in their entirety by reference to, all the provisions of the indenture applicable to a particular series of debt securities.

General

Each indenture provides that debt securities may be issued from time to time in one or more series and may be denominated and payable in foreign currencies or units based on or relating to foreign currencies. Neither indenture limits the amount of debt securities that may be issued thereunder, and each indenture provides that the specific terms of any series of debt securities shall be set forth in, or determined pursuant to, an authorizing resolution and/or a supplemental indenture, if any, relating to such series.

We will describe in each prospectus supplement the following terms relating to a series of debt securities:

- the title or designation;
- the aggregate principal amount and any limit on the amount that may be issued;
- the currency or units based on or relating to currencies in which debt securities of such series are denominated and the currency or units in which principal or interest or both will or may be payable;
- whether we will issue the series of debt securities in global form, the terms of any global securities and who the depositary will be;
- the maturity date and the date or dates on which principal will be payable;
- the interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the date or dates interest will be payable and the record dates for interest payment dates or the method for determining such dates;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- the terms of the subordination of any series of subordinated debt;
- the place or places where payments will be payable;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;

- the date, if any, after which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional redemption provisions;
- the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities;
- whether the indenture will restrict our ability to pay dividends, or will require us to maintain any asset ratios or reserves;
- whether we will be restricted from incurring any additional indebtedness;
- a discussion of any material or special U.S. federal income tax considerations applicable to a series of debt securities;
- the denominations in which we will issue the series of debt securities, if other than denominations of $1,000 and any integral multiple thereof; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities.

We may issue debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

Conversion or Exchange Rights

We will set forth in the prospectus supplement the terms, if any, on which a series of debt securities may be convertible into or exchangeable for our Class A common stock or our other securities. We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our Class A common stock or our other securities that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale; No Protection in Event of a Change of Control or Highly Leveraged Transaction

The indentures do not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of such assets must assume all of our obligations under the indentures or the debt securities, as appropriate.

Unless we state otherwise in the applicable prospectus supplement, the debt securities will not contain any provisions that may afford holders of the debt securities protection in the event we have a change of control or in the event of a highly leveraged transaction (whether or not such transaction results in a change of control), which could adversely affect holders of debt securities.

Events of Default Under the Indenture

The following are events of default under the indentures with respect to any series of debt securities that we may issue:

- if we fail to pay interest when due and our failure continues for 90 days and the time for payment has not been extended or deferred;
- if we fail to pay the principal, or premium, if any, when due and the time for payment has not been extended or delayed;

- if we fail to observe or perform any other covenant set forth in the debt securities of such series or the applicable indentures, other than a covenant specifically relating to and for the benefit of holders of another series of debt securities, and our failure continues for 90 days after we receive written notice from the debenture trustee or holders of not less than a majority in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur as to us.

No event of default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an event of default with respect to any other series of debt securities. The occurrence of an event of default may constitute an event of default under any bank credit agreements we may have in existence from time to time. In addition, the occurrence of certain events of default or an acceleration under the indenture may constitute an event of default under certain of our other indebtedness outstanding from time to time.

If an event of default with respect to debt securities of any series at the time outstanding occurs and is continuing, then the trustee or the holders of not less than a majority in principal amount of the outstanding debt securities of that series may, by a notice in writing to us (and to the debenture trustee if given by the holders), declare to be due and payable immediately the principal (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) of and premium and accrued and unpaid interest, if any, on all debt securities of that series. Before a judgment or decree for payment of the money due has been obtained with respect to debt securities of any series, the holders of a majority in principal amount of the outstanding debt securities of that series (or, at a meeting of holders of such series at which a quorum is present, the holders of a majority in principal amount of the debt securities of such series represented at such meeting) may rescind and annul the acceleration if all events of default, other than the non-payment of accelerated principal, premium, if any, and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the applicable indenture (including payments or deposits in respect of principal, premium or interest that had become due other than as a result of such acceleration). We refer you to the prospectus supplement relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of such discount securities upon the occurrence of an event of default.

Subject to the terms of the indentures, if an event of default under an indenture shall occur and be continuing, the debenture trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the debenture trustee reasonable indemnity. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the debenture trustee, or exercising any trust or power conferred on the debenture trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act, the debenture trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will only have the right to institute a proceeding under the indentures or to appoint a receiver or trustee, or to seek other remedies if:

- the holder previously has given written notice to the debenture trustee of a continuing event of default with respect to that series;
- the holders of at least a majority in aggregate principal amount of the outstanding debt securities of that series have made written request, and such holders have offered reasonable indemnity to the debenture trustee to institute the proceeding as trustee; and

- the debenture trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series (or at a meeting of holders of such series at which a quorum is present, the holders of a majority in principal amount of the debt securities of such series represented at such meeting) other conflicting directions within 60 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the applicable debenture trustee regarding our compliance with specified covenants in the applicable indenture.

Modification of Indenture; Waiver

The debenture trustee and we may change the applicable indenture without the consent of any holders with respect to specific matters, including:

- to fix any ambiguity, defect or inconsistency in the indenture; and
- to change anything that does not materially adversely affect the interests of any holder of debt securities of any series issued pursuant to such indenture.

In addition, under the indentures, the rights of holders of a series of debt securities may be changed by us and the debenture trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series (or, at a meeting of holders of such series at which a quorum is present, the holders of a majority in principal amount of the debt securities of such series represented at such meeting) that is affected. However, the debenture trustee and we may make the following changes only with the consent of each holder of any outstanding debt securities affected:

- extending the fixed maturity of the series of debt securities;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or any premium payable upon the redemption of any debt securities;
- reducing the principal amount of discount securities payable upon acceleration of maturity;
- making the principal of or premium or interest on any debt security payable in currency other than that stated in the debt security; or
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment or waiver.

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series (or, at a meeting of holders of such series at which a quorum is present, the holders of a majority in principal amount of the debt securities of such series represented at such meeting) may on behalf of the holders of all debt securities of that series waive our compliance with provisions of the indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all the debt securities of such series waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, premium or any interest on any debt security of that series or in respect of a covenant or provision, which cannot be modified or amended without the consent of the holder of each outstanding debt security of the series affected; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration.

Discharge

Each indenture provides that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for obligations to:

- transfer or exchange debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise our rights to be discharged with respect to a series, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, the premium, if any, and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange, and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we otherwise specify in the applicable prospectus supplement, in denominations of $1,000 and any integral multiple thereof. The indentures provide that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company or another depositary named by us and identified in a prospectus supplement with respect to that series.

At the option of the holder, subject to the terms of the indentures and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indentures and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange or in the applicable indenture, we will make no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Information Concerning the Debenture Trustee

The debenture trustee, other than during the occurrence and continuance of an event of default under the applicable indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the debenture trustee under such indenture must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the debenture trustee is under no obligation to exercise any of the powers given it by the indentures at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check which we will mail to the holder. Unless we otherwise indicate in a prospectus supplement, we will designate the corporate trust office of the debenture trustee in the City of New York as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the debenture trustee for the payment of the principal of or any premium or interest on any debt securities which remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the security thereafter may look only to us for payment thereof.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

Subordination of Subordinated Debt Securities

Our obligations pursuant to any subordinated debt securities will be unsecured and will be subordinate and junior in priority of payment to certain of our other indebtedness to the extent described in a prospectus supplement. The subordinated indenture does not limit the amount of senior indebtedness we may incur. It also does not limit us from issuing any other secured or unsecured debt.

DESCRIPTION OF WARRANTS

General

We may issue warrants to purchase shares of our Class A common stock, preferred stock and/or debt securities in one or more series together with other securities or separately, as described in the applicable prospectus supplement. Below is a description of certain general terms and provisions of the warrants that we may offer. Particular terms of the warrants will be described in the warrant agreements and the prospectus supplement relating to the warrants.

The applicable prospectus supplement will contain, where applicable, the following terms of and other information relating to the warrants:

- the specific designation and aggregate number of, and the price at which we will issue, the warrants;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- the designation, amount and terms of the securities purchasable upon exercise of the warrants;
- if applicable, the exercise price for shares of our Class A common stock and the number of shares of Class A common stock to be received upon exercise of the warrants;
- if applicable, the exercise price for shares of our preferred stock, the number of shares of preferred stock to be received upon exercise, and a description of that series of our preferred stock;
- if applicable, the exercise price for our debt securities, the amount of debt securities to be received upon exercise, and a description of that series of debt securities;
- the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if you may not continuously exercise the warrants throughout that period, the specific date or dates on which you may exercise the warrants;
- whether the warrants will be issued in fully registered form or bearer form, in definitive or global form or in any combination of these forms, although, in any case, the form of a warrant included in a unit will correspond to the form of the unit and of any security included in that unit;
- any applicable material U.S. federal income tax consequences;
- the identity of the warrant agent for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;
- the proposed listing, if any, of the warrants or any securities purchasable upon exercise of the warrants on any securities exchange;
- if applicable, the date from and after which the warrants and the Class A common stock, preferred stock and/or debt securities will be separately transferable;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- information with respect to book-entry procedures, if any;
- the anti-dilution provisions of the warrants, if any;
- any redemption or call provisions;
- whether the warrants may be sold separately or with other securities as parts of units; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

Transfer Agent and Registrar

The transfer agent and registrar for any warrants will be set forth in the applicable prospectus supplement.

DESCRIPTION OF RIGHTS

General

We may issue rights to our stockholders to purchase shares of our Class A common stock, preferred stock or the other securities described in this prospectus. We may offer rights separately or together with one or more additional rights, debt securities, preferred stock, Class A common stock or warrants, or any combination of those securities in the form of units, as described in the applicable prospectus supplement. Each series of rights will be issued under a separate rights agreement to be entered into between us and a bank or trust company, as rights agent. The rights agent will act solely as our agent in connection with the certificates relating to the rights of the series of certificates and will not assume any obligation or relationship of agency or trust for or with any holders of rights certificates or beneficial owners of rights. The following description sets forth certain general terms and provisions of the rights to which any prospectus supplement may relate. The particular terms of the rights to which any prospectus supplement may relate and the extent, if any, to which the general provisions may apply to the rights so offered will be described in the applicable prospectus supplement. To the extent that any particular terms of the rights, rights agreement or rights certificates described in a prospectus supplement differ from any of the terms described below, then the terms described below will be deemed to have been superseded by that prospectus supplement. We encourage you to read the applicable rights agreement and rights certificate for additional information before you decide whether to purchase any of our rights.

We will provide in a prospectus supplement the following terms of the rights being issued:

- the date of determining the stockholders entitled to the rights distribution;
- the aggregate number of shares of Class A common stock, preferred stock or other securities purchasable upon exercise of the rights;
- the exercise price;
- the aggregate number of rights issued;
- whether the rights are transferrable and the date, if any, on and after which the rights may be separately transferred;
- the date on which the right to exercise the rights will commence, and the date on which the right to exercise the rights will expire;
- the method by which holders of rights will be entitled to exercise;
- the conditions to the completion of the offering, if any;
- the withdrawal, termination and cancellation rights, if any;
- whether there are any backstop or standby purchaser or purchasers and the terms of their commitment, if any;
- whether stockholders are entitled to oversubscription rights, if any;
- any applicable material U.S. federal income tax considerations; and
- any other terms of the rights, including terms, procedures and limitations relating to the distribution, exchange and exercise of the rights, as applicable.

Each right will entitle the holder of rights to purchase for cash the principal amount of shares of Class A common stock, preferred stock or other securities at the exercise price provided in the applicable prospectus supplement. Rights may be exercised at any time up to the close of business on the expiration date for the rights provided in the applicable prospectus supplement.

Holders may exercise rights as described in the applicable prospectus supplement. Upon receipt of payment and the rights certificate properly completed and duly executed at the corporate trust office of the rights agent or

any other office indicated in the prospectus supplement, we will, as soon as practicable, forward the shares of Class A common stock, preferred stock or other securities, as applicable, purchasable upon exercise of the rights. If less than all of the rights issued in any rights offering are exercised, we may offer any unsubscribed securities directly to persons other than stockholders, to or through agents, underwriters or dealers or through a combination of such methods, including pursuant to standby arrangements, as described in the applicable prospectus supplement.

Rights Agent

The rights agent for any rights we offer will be set forth in the applicable prospectus supplement.

DESCRIPTION OF UNITS

The following description, together with the additional information that we include in any applicable prospectus supplements, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below.

We will incorporate by reference from reports that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we may offer under this prospectus, as well as any related free writing prospectuses and the complete unit agreement and any supplemental agreements that contain the terms of the units.

General

We may issue units consisting of Class A common stock, preferred stock, one or more debt securities, warrants or rights for the purchase of Class A common stock, preferred stock or debt securities in one or more series, in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each security included in the unit. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units being offered, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those set forth in any prospectus supplement or as described under “Description of Shares,” “Description of Debt Securities,” “Description of Warrants,” and “Description of Rights” will apply to each unit, as applicable, and to any Class A common stock, preferred stock, debt security, warrant or right included in each unit, as applicable.

Unit Agent

The name and address of the unit agent for any units we offer will be set forth in the applicable prospectus supplement.

Issuance in Series

We may issue units in such amounts and in such numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

LEGAL MATTERS

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, will pass upon the validity of the issuance of the securities to be offered by this prospectus.

EXPERTS

The consolidated financial statements for the years ended December 31, 2025 and 2024, incorporated by reference in this prospectus and elsewhere in the registration statement have been so incorporated by reference in reliance upon the report of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the reporting requirements of the Exchange Act and file annual, quarterly and current reports, proxy statements and other information with the SEC. SEC filings are available at the SEC's website at http://www.sec.gov.

This prospectus is only part of a registration statement on Form S-3 that we have filed with the SEC under the Securities Act, and therefore omits certain information contained in the registration statement. We have also filed exhibits and schedules with the registration statement that are excluded from this prospectus, and you should refer to the applicable exhibit or schedule for a complete description of any statement referring to any contract or other document. You may obtain a copy of the registration statement, including the exhibits and schedules, from the SEC's website.

We also maintain a website at http://www.hyperfine.io, through which you can access our SEC filings free of charge. The information set forth on our website is not part of this prospectus.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with them. Incorporation by reference allows us to disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We filed a registration statement on Form S-3 under the Securities Act with the SEC with respect to the securities we may offer pursuant to this prospectus. This prospectus omits certain information contained in the registration statement, as permitted by the SEC. You should refer to the registration statement, including the exhibits, for further information about us and the securities we may offer pursuant to this prospectus. Statements in this prospectus regarding the provisions of certain documents filed with, or incorporated by reference in, the registration statement are not necessarily complete and each statement is qualified in all respects by that reference. Copies of all or any part of the registration statement, including the documents incorporated by reference or the exhibits, are available at the SEC's website at http://www.sec.gov. The documents we are incorporating by reference are:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2025 that we filed with the SEC on March 18, 2026;
- the portions of our definitive proxy statement on Schedule 14A that we filed with the SEC on April 8, 2026 that are deemed "filed" with the SEC under the Exchange Act;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2026 that we filed with the SEC on May 12, 2026, our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2026 that we filed with the SEC on August 6, 2026 and our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2026 that we filed with the SEC on November 9, 2026;
- our Current Reports on Form 8-K that we filed with the SEC on March 18, 2026 (under Items 1.01, 2.03, 3.02 and 9.01), May 21, 2026, and September 18, 2026 (except for the information furnished under Items 2.02 or 7.01 and the exhibits furnished thereto);
- the description of our securities contained in our Registration Statement on Form 8-A that we filed with the SEC on January 26, 2021, including any amendment or report filed for the purpose of updating such description including Exhibit 4.2 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2025; and
- all reports and other documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this prospectus and prior to the termination or completion of the offering of securities under this prospectus shall be deemed to be incorporated by reference in this prospectus and to be a part hereof from the date of filing such reports and other documents.

The SEC file number for each of the documents listed above is 001-39949.

In addition, all reports and other documents filed by us pursuant to the Exchange Act after the date of the initial registration statement of which this prospectus is a part and prior to effectiveness of the registration statement shall be deemed to be incorporated by reference into this prospectus.

Any statement contained in this prospectus or in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may request, orally or in writing, a copy of any or all of the documents incorporated herein by reference. These documents will be provided to you at no cost, by contacting:

Hyperfine, Inc.
351 New Whitfield Street
Guilford, Connecticut 06437
Telephone: (866) 796-6767

You may also access these documents on our website, http://www.hyperfine.io. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

You should rely only on information contained in, or incorporated by reference into, this prospectus and any prospectus supplement. We have not authorized anyone to provide you with information different from that contained in this prospectus or incorporated by reference in this prospectus. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make such offer or solicitation.

THE INFORMATION IN THIS PROSPECTUS SUPPLEMENT IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS SUPPLEMENT IS NOT AN OFFER TO SELL THESE SECURITIES AND IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE OR OTHER JURISDICTION WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION, DATED NOVEMBER 9, 2026

PROSPECTUS SUPPLEMENT
(To Prospectus Dated , 2026)

Hyperfine, Inc.

HYPERFINE

Up to $50,000,000

Class A Common Stock

We have entered into an Amended and Restated At Market Issuance Sales Agreement, dated December 29, 2025, or the Sales Agreement, with B. Riley Securities, Inc., or B. Riley, and BTIG, LLC, or BTIG, and together with B. Riley, each a Sales Agent and collectively the Sales Agents, relating to our Class A common stock, par value $0.0001 per share, or Class A common stock, offered by this prospectus supplement. In accordance with the terms of the Sales Agreement, we may offer and sell our Class A common stock having an aggregate offering price of up to $50,000,000 from time to time through or to the Sales Agents, acting as sales agents or principals.

Our Class A common stock is listed on The Nasdaq Global Market under the symbol "HYPR." On November 4, 2026, the last reported sale price of our Class A common stock on The Nasdaq Global Market was $0.7503 per share.

Sales of shares of our Class A common stock, if any, under this prospectus supplement may be made in sales deemed to be an "at the market offering" as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended, or the Securities Act. The Sales Agents are not required to sell any specific number or dollar amount of securities, but will act as sales agents on a best efforts basis and use commercially reasonable efforts consistent with their normal trading and sales practices, on mutually agreed terms between us and the Sales Agents. We may also sell shares of our Class A common stock to the Sales Agents as principals. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

The Sales Agents will be entitled to compensation at a commission rate of up to 3.0% of the gross offering proceeds received per share of Class A common stock sold under the Sales Agreement. See "Plan of Distribution" beginning on page S-16 for additional information regarding the compensation to be paid to the Sales Agents. In connection with the sale of Class A common stock on our behalf, the Sales Agents will each be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation of the Sales Agents will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to the Sales Agents with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended, or the Exchange Act.

Investing in our Class A common stock involves a high degree of risk. See the information contained under "Risk Factors" beginning on page S-7 of this prospectus supplement and under similar headings in the documents incorporated by reference herein for a discussion of the factors you should carefully consider before deciding to purchase these securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

B. Riley Securities **BTIG**

The date of this prospectus supplement is , 2026.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement is part of a shelf registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the SEC, under the Securities Act. Under the shelf registration process, we may offer our Class A common stock having an aggregate offering price of up to $50,000,000 from time to time under this prospectus supplement at prices and on terms to be determined by market conditions at the time of the offering.

We provide information to you about this offering of our Class A common stock in two separate documents that are bound together: (1) this prospectus supplement, which describes the specific details regarding this offering; and (2) the accompanying base prospectus, which provides general information, some of which may not apply to this offering. Generally, when we refer to this "prospectus," we are referring to both documents combined. If information in this prospectus supplement is inconsistent with the accompanying base prospectus, you should rely on this prospectus supplement. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in any document incorporated by reference in this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date for example, a document incorporated by reference in this prospectus supplement the statement in the document having the later date modifies or supersedes the earlier statement. You should rely only on the information contained or incorporated by reference in this prospectus supplement. We have not, and the Sales Agents have not, authorized anyone to provide you with information that is in addition to or different from that contained or incorporated by reference in this prospectus supplement or contained in any permitted free writing prospectuses that we may authorize, if we are eligible, for use in connection with this offering. We and the Sales Agents take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may provide.

The information contained in this prospectus supplement and the documents incorporated by reference herein is accurate only as of their respective dates, regardless of the time of delivery of any such document or the time of any sale of our Class A common stock. Our business, financial condition, results of operations and prospects may have changed since those dates. It is important for you to read and consider all information contained or incorporated by reference in this prospectus supplement in making your investment decision. You should read this prospectus supplement, as well as the documents incorporated by reference herein, the additional information described under the sections titled "Where You Can Find More Information" and "Incorporation of Documents by Reference" in this prospectus supplement and any free writing prospectus that we may, if eligible, from time to time authorize for use in connection with this offering, before investing in our Class A common stock.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to the registration statement of which this prospectus supplement is a part or to any document that is incorporated by reference in this prospectus supplement were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

We are offering to sell, and seeking offers to buy, our Class A common stock only in jurisdictions where such offers and sales are permitted. The distribution of this prospectus supplement and the offering of our Class A common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement must inform themselves about, and observe any restrictions relating to, the offering of our Class A common stock and the distribution of this prospectus supplement outside the United States. This prospectus supplement does not constitute, and may not be used in connection with, an offer to sell or the solicitation of an offer to buy any securities other than the Class A common stock to which it

relates, nor does this prospectus supplement constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

Unless otherwise indicated, information contained in or incorporated by reference into this prospectus supplement concerning our industry and the markets in which we operate, including market opportunity, market position and competitive landscape, is based on information from our management's estimates, as well as from industry publications, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry, and assumptions based on such information and knowledge, which we believe to be reasonable. In addition, while we believe that information contained in the industry publications, surveys and studies has been obtained from reliable sources, the accuracy and completeness of such information is not guaranteed, and we have not independently verified any of the data contained in these third-party sources.

This prospectus supplement, including the documents incorporated by reference herein, includes statements that are based on various assumptions and estimates that are subject to numerous known and unknown risks and uncertainties. Some of these risks and uncertainties are described in the section entitled "Risk Factors" beginning on page S-7 of this prospectus supplement and described in the section entitled "Risk Factors" in our most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, as well as the other documents we will from time to time file with the SEC. These and other important factors could cause our future results to be materially different from the results expected as a result of, or implied by, these assumptions and estimates. You should read the information contained in, or incorporated by reference into, this prospectus supplement completely and with the understanding that future results may be materially different from and worse than what we expect. See the information included under the heading "Special Note Regarding Forward-Looking Statements."

Unless the context otherwise requires, "Hyperfine," "HYPR," the "Company," "we," "us," "our" and similar terms refer to Hyperfine, Inc. and our subsidiaries.

All trademarks, trade names and service marks included in this prospectus supplement are the property of their respective owners. Use or display by us of other parties' trademarks, trade dress or products is not intended to and does not imply a relationship with, or endorsements or sponsorship of, us by the trademark or trade dress owner.

PROSPECTUS SUPPLEMENT SUMMARY

The following is a summary of what we believe to be the most important aspects of our business and the offering of our Class A common stock under this prospectus supplement. We urge you to read this entire prospectus, including the more detailed consolidated financial statements, notes to the consolidated financial statements and other information incorporated by reference from our other filings with the SEC. Investing in our Class A common stock involves risks. Therefore, carefully consider the risk factors set forth in this prospectus supplement and in our most recent annual and quarterly filings with the SEC, as well as other information in this prospectus supplement and the documents incorporated by reference herein, before purchasing our Class A common stock. Each of the risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our Class A common stock.

About Hyperfine, Inc.

We are an innovative health technology business with a mission to revolutionize patient care globally through accessible, affordable, clinically relevant artificial intelligence, or AI, powered portable ultra-low-field, or ULF, magnetic resonance, or MR, brain imaging. Our Swoop® Portable MR Imaging® System, or the Swoop® system, produces high-quality images at a significantly lower magnetic field strength than conventional magnetic resonance imaging, or MRI, scanners. Our Swoop® system is designed to transform brain MR for the patient, the clinician and the provider, enabling a highly differentiated patient-friendly experience, timely imaging for clinicians, and favorable economics for healthcare administrators. The Swoop® system is a portable, ULF MRI device for producing images that display the internal structures of the head where full diagnostic examination is not clinically practical. When interpreted by a trained physician, these images provide information that can be useful in determining a diagnosis. Healthcare professionals can use the Swoop® system efficiently to make effective clinical diagnoses and decisions in various care settings where conventional MRI devices are inaccessible and/or when they are not readily available. The portable design of our Swoop® system makes it safely and readily accessible anywhere in a hospital, clinic, physician's office, or patient care site and it does not require any special facilities accommodations. The easy to use, iPad-based interface makes its operation easy to learn and it does not require specialized MRI technicians to operate safely. ULF MR does not expose patients to harmful ionizing radiation and compares favorably in this regard to X-ray computed tomography or positron emission tomography.

The Swoop® system is the first U.S. Food and Drug Administration ("FDA")-cleared portable, ULF, MR brain imaging system that is capable of providing imaging at multiple sites of care, such as intensive care units, emergency departments, procedural rooms, clinics or physicians' offices, and can inform the timely detection, diagnosis, monitoring, and treatment of acute and chronic neurological conditions inside and outside the hospital. Our Swoop® system received initial 510(k) clearance for brain imaging from the FDA in 2020. In May 2025, we received 510(k) clearance from the FDA for our tenth-generation AI-powered software, Optive AI™. Also in May 2025, we achieved an important milestone and received 510(k) clearance from the FDA for our next-generation Swoop® scanner powered by Optive AI™ software. In December 2025, we received FDA clearance for the eleventh-generation AI-powered software, and in August 2026, we received FDA clearance for the latest Optive AI™ software update for the Swoop® system.

Outside of the United States, the first-generation Swoop® system has received marketing authorization for brain imaging in several countries, including the European Union ("CE Mark"), the United Kingdom (UK Conformity Assessment ("UKCA Mark")), Canada, Australia, New Zealand and India. In October 2024 and February 2025, we received CE Mark and UKCA Mark approval for the ninth-generation of software, respectively. In August 2025, we received both CE Mark and UKCA Mark approvals for our Optive AI™ software. In March 2026, we achieved an important milestone and received both CE Mark and UKCA Mark approval for both the next-generation Swoop® scanner and the eleventh-generation Optive AI™ software. In October 2026, the Company received CE Mark and UKCA Mark approvals for the latest Optive AI™ software. In

December 2025, the Company received regulatory approval in India from the Central Drugs Standard Control Organization, authorizing commercialization of the first-generation Swoop® system throughout India. The Company's Optive AI™ software is currently available in the United States, Canada, United Kingdom, Europe, Australia, New Zealand and India markets and the next-generation Swoop® system is currently available in the United States and European markets.

Corporate History and Information

We were originally incorporated as a Cayman Islands exempted company in 2020 under the name HealthCor Catalio Acquisition Corp. ("HealthCor"). On December 21, 2021, HealthCor domesticated as a Delaware corporation. On December 22, 2021, HealthCor completed a business combination (the "Business Combination") with Hyperfine, Inc. ("Legacy Hyperfine"), a Delaware corporation incorporated in February 2014, and Liminal Sciences, Inc. ("Liminal"), a Delaware corporation incorporated in September 2018. As a result, Legacy Hyperfine and Liminal became our wholly owned subsidiaries, HealthCor changed its name to "Hyperfine, Inc." and the business of Legacy Hyperfine and Liminal became our business.

Our principal executive offices are located at 351 New Whitfield Street, Guilford, Connecticut 06437, and our telephone number is (866) 796-6767.

Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act are available free of charge through the investor relations page of our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC.

THE OFFERING	
Class A common stock offered by us:	Class A common stock having an aggregate offering price of up to $50,000,000.
Plan of Distribution:	"At the market offering" that may be made from time to time on The Nasdaq Global Market or other existing trading market for our Class A common stock through or to, B. Riley and BTIG, as sales agents or principals. See "Plan of Distribution" on page S-16 of this prospectus supplement.
Use of Proceeds:	We intend to use the net proceeds from this offering, if any, for our commercial activities, including commercialization, manufacturing development and regulatory clearance of our products, research and development, and for other general corporate purposes, including for working capital, intellectual property protection and enforcement, capital expenditures, investments, acquisitions and collaborations. See "Use of Proceeds."
Voting Rights:	We have two classes of shares outstanding: Class A common stock and Class B common stock, par value $0.0001 per share. The rights of the holders of Class A common stock and Class B common stock are generally identical, except with respect to voting and conversion. See "Conversion Rights" for more detail on conversion rights. The Class A common stock has one vote per share, and the Class B common stock has 20 votes per share. See "Description of Shares—Class B Common Stock—Voting Rights" in the accompanying base prospectus. After giving effect to the assumed offering of the full $50,000,000 of shares of Class A common stock at an assumed offering price of $0.7503, the last reported sale price of our Class A common stock on The Nasdaq Global Market on November 4, 2026, our Class A common stock will collectively represent 91.3% of our total issued and outstanding shares of capital stock and 34.4% of the combined voting power attached to all of our issued and outstanding shares of capital stock, and the Class B common stock will collectively represent 65.6% of the combined voting power attached to all of our issued and outstanding shares of capital stock.
Conversion Rights:	The Class A common stock is not convertible into any other class of shares, while the Class B common stock is convertible into Class A common stock on a one-to-one basis at the option of the holder and automatically upon the occurrence of certain events. See "Description of Shares—Class B Common Stock—Optional Conversion" and "—Mandatory Conversion" in the accompanying base prospectus.

Risk Factors:	Investing in our Class A common stock involves risks. See "Risk Factors" beginning on page S-7 of this prospectus supplement and under similar headings in the documents incorporated by reference herein for a discussion of the factors you should carefully consider before deciding to invest in shares of our Class A common stock.
Nasdaq symbol:	"HYPR"

RISK FACTORS

Investing in our Class A common stock involves a high degree of risk. Before making an investment decision, you should carefully consider the risks described below and in our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, as well as any amendments thereto reflected in subsequent filings with the SEC, each of which are incorporated by reference in this prospectus supplement, and all of the other information in this prospectus supplement, including our financial statements and related notes incorporated by reference herein. If any of these risks is realized, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the trading price of our Class A common stock could decline and you could lose part or all of your investment. Additional risks and uncertainties that are not yet identified or that we currently believe to be immaterial may also materially harm our business, financial condition, results of operations and prospects and could result in a complete loss of your investment.

Risks Related to This Offering and Our Class A Common Stock

Shares of our Class A common stock offered hereby will be sold in "at the market offerings," and investors who buy shares of our Class A common stock at different times will likely pay different prices.

Investors who purchase shares of our Class A common stock in this offering at different times will likely pay different prices, and so may experience different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices, and numbers of shares of our Class A common stock sold, and there is no minimum or maximum sales price. Investors may experience a decline in the value of their shares of Class A common stock as a result of sales made at prices lower than the prices they paid.

If you purchase Class A common stock in this offering, you will suffer immediate dilution of your investment.

The assumed public offering price of our Class A common stock of $0.7503 per share, the last reported sale price of our Class A common stock on The Nasdaq Global Market on November 4, 2026, is higher than the net tangible book value per share of our Class A common stock. Therefore, if you purchase our Class A common stock in this offering, you may pay a price per share that exceeds our net tangible book value per share after giving effect to this offering. If you purchase our Class A common stock in this offering at the assumed public offering price, you will incur an immediate dilution in net tangible book value of $0.29 per share. For a further description of the dilution that you will experience immediately after this offering, see the section titled "Dilution." In addition, in the past, we have issued options to acquire Class A common stock at prices significantly below the offering price and we have issued warrants and restricted stock units. To the extent these outstanding options or warrants are exercised or these restricted stock units vest, you will incur additional dilution.

Our management will have broad discretion over the use of the net proceeds from this offering, and you may not agree with how we use the proceeds and the proceeds may not be invested successfully.

Our management will have broad discretion as to the use of the net proceeds from this offering, if any, and could use them for purposes other than those contemplated at the time of this offering. Accordingly, you are relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds will be used appropriately. It is possible that the proceeds will be invested in a way that does not yield a favorable, or any, return for the Company.

Because we do not anticipate paying any cash dividends on our Class A common stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.

We have never declared or paid cash dividends on our Class A common stock. We currently anticipate that we will retain our earnings, if any, for future growth and therefore do not anticipate paying cash dividends in the future. As a result, only appreciation of the price of our Class A common stock will provide a return to stockholders.

The market price of our Class A common stock is likely to be highly volatile, and our stockholders may lose some or all of their investment.

The market price of our Class A common stock is likely to be highly volatile, including in response to factors that are beyond our control. The stock market in general experiences extreme price and volume fluctuations. In particular, the market prices of securities of healthcare technology companies are extremely volatile, and experience fluctuations that are often unrelated or disproportionate to the operating performance of these companies. These broad and sector-specific market fluctuations can result in extreme fluctuations in the price of our Class A common stock, regardless of our operating performance, and can cause our stockholders to lose some or all of their investment in the Company.

We may incur significant costs from class action litigation due to share volatility.

Our share price may fluctuate for many reasons, including as a result of public announcements regarding the progress of our development efforts or the development efforts of our collaborators and/or competitors, the addition or departure of our key personnel, variations in our quarterly operating results and changes in market valuations of healthcare technology companies. Holders of shares which have experienced significant price and trading volatility have occasionally brought securities class action litigation against the companies that issued the shares. If any of our stockholders were to bring a lawsuit of this type against us, even if the lawsuit is without merit, we could incur substantial costs defending the lawsuit. The lawsuit could also divert the time and attention of our management, which could harm our business.

Sales of additional Class A common stock could cause the price of our Class A common stock to decline.

Sales of substantial amounts of our Class A common stock in the public market, or the availability of such shares for sale, by us or others, including the issuance of Class A common stock upon exercise or vesting of outstanding options, warrants and restricted stock units or conversion of our Class B common stock into shares of our Class A common stock, or the perception that such sales could occur, could adversely affect the price of our Class A common stock and impair our ability to raise capital through the sale of additional equity securities. As of the date of this prospectus supplement, 15,055,288 shares of Class B common stock outstanding are convertible into an equal number of shares of Class A common stock at any time at the option of the holders thereof and automatically upon the occurrence of certain events. See "Description of Shares—Class B Common Stock—Optional Conversion" and "—Mandatory Conversion" in the accompanying base prospectus. We may sell large quantities of shares of our Class A common stock at any time pursuant to this prospectus supplement or in one or more separate offerings. We cannot predict the effect that future sales of shares of our Class A common stock would have on the market price of our Class A common stock.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we may in the future offer additional shares of our Class A common stock or other securities convertible into or exchangeable for our Class A common stock. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our Class A common stock or other securities convertible into or exchangeable for our Class A common stock in future transactions may be higher or lower than the price per share in this offering.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our share price and trading volume could decline.

The trading market for our Class A common stock may depend in part on the research and reports that securities or industry analysts publish about us or our business. If too few securities or industry analysts cover our company, the trading price for our Class A common stock would likely be negatively impacted. If one or

more of the analysts who cover us downgrade our Class A common stock or publish research about our business that is unfavorable or based on stale projections or other information or otherwise inaccurate, our share price would likely decline. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, demand for our Class A common stock could decrease, which might cause our share price and trading volume to decline.

The actual number of shares of Class A common stock we will issue under the Sales Agreement, at any one time or in total, is uncertain.

Subject to certain limitations in the Sales Agreement and compliance with applicable law, we have the discretion to deliver a placement notice to the Sales Agents at any time throughout the term of the Sales Agreement. The number of shares of Class A common stock that are sold by the Sales Agents after delivering a placement notice will fluctuate based on the market price of our Class A common stock during the sales period and limits we set with the Sales Agents. Because the price per share of Class A common stock sold will fluctuate based on the market price of our Class A common stock during the sales period, it is not possible at this stage to predict the number of shares of Class A common stock that will be ultimately issued, if any, and the gross proceeds (if any) that we would receive from such sales.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the documents incorporated by reference in this prospectus supplement include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that relate to future events or to our future operations or financial performance. Any forward-looking statement involves known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to differ materially from any future results, levels of activity, performance or achievements expressed or implied by such forward-looking statement. Words such as, but not limited to, "believe," "expect," "anticipate," "estimate," "intend," "may," "plan," "potential," "predict," "project," "targets," "likely," "will," "would," "could," "should," "continue," "scheduled," and similar expressions or phrases, or the negative of those expressions or phrases, are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Although we believe that we have a reasonable basis for each forward-looking statement contained or incorporated by reference in this prospectus supplement, we caution you that these statements are based on our projections of the future that are subject to known and unknown risks and uncertainties and other important factors that may cause our actual results, level of activity, performance or achievements expressed or implied by any forward-looking statement to differ materially from those expressed or implied by any forward-looking statement. The sections in our periodic reports, including our Annual Report on Form 10-K for the fiscal year ended December 31, 2025, entitled "Business," "Risk Factors," and "Management's Discussion and Analysis of Financial Condition and Results of Operations," as well as other sections in this prospectus supplement and the documents or reports incorporated by reference in this prospectus supplement, discuss some of the factors that could contribute to these differences. These forward-looking statements include, among other things, statements about:

- the success, cost and timing of our product development activities;
- the commercialization and adoption of our existing products and the success of our future product offerings;
- the potential attributes and benefits of our products and services;
- our ability to obtain and maintain regulatory approval for our products, and any related restrictions and limitations of any approved product;
- our ability to identify, in-license or acquire additional technology;
- our ability to maintain our existing licensing, manufacturing and supply agreements;
- our ability to compete with other companies currently marketing or engaged in the development of magnetic resonance imaging technologies, many of which have greater financial and marketing resources than us;
- the size and growth potential of the markets for our products and services, and the ability of our products and services to serve those markets, either alone or in partnership with others;
- the pricing of our products and services and reimbursement for medical procedures conducted using our products and services;
- changes in applicable laws or regulations;
- our history of losses and our ability to continue as a going concern;
- our estimates regarding expenses, revenue, capital requirements and needs for additional financing;
- our ability to raise financing in the future and the effects of future raises;
- our indebtedness under our Loan and Security Agreement (the "Loan Agreement") with Horizon Technology Finance Corporation and our ability to comply with the covenants and other terms therein;
- our financial performance;

- our success in retaining or recruiting, or changes required in, our officers, key employees or directors;
- intense competition and competitive pressures from other companies in the industry in which we operate;
- market conditions and global and economic factors, such as inflation, geopolitical conflicts and instability;
- our intellectual property rights;
- the effect of legal, tax and regulatory changes;
- National Institutes of Health funding pressures;
- the effect of U.S. export controls and tariffs; and
- our expectations regarding the use of proceeds from the offering of our Class A common stock under this prospectus supplement.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important cautionary statements in this prospectus supplement or in the documents incorporated by reference in this prospectus supplement, particularly in the "Risk Factors" section, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. For a summary of such factors, please refer to the section entitled "Risk Factors" in this prospectus supplement, as updated and supplemented by the discussion of risks and uncertainties under "Risk Factors" contained in any supplements to this prospectus supplement and in our most recent Annual Report on Form 10-K, as revised or supplemented by our subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, as well as any amendments thereto, as filed with the SEC and which are incorporated herein by reference. The information contained in this document is believed to be current as of the date of this document. We do not intend to update any of the forward-looking statements after the date of this document to conform these statements to actual results or to changes in our expectations, except as required by law.

In light of these assumptions, risks and uncertainties, the results and events discussed in the forward-looking statements contained in this prospectus supplement or in any document incorporated herein by reference might not occur. Investors are cautioned not to place undue reliance on the forward-looking statements, which speak only as of the date of this prospectus supplement or the date of the document incorporated by reference in this prospectus supplement. We are not under any obligation, and we expressly disclaim any obligation, to update or alter any forward-looking statements, whether as a result of new information, future events or otherwise. All subsequent forward-looking statements attributable to us or to any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section.

USE OF PROCEEDS

We may issue and sell our Class A common stock under this prospectus supplement having aggregate sales proceeds of up to $50,000,000 from time to time. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. There can be no assurance that we will sell any shares under or fully utilize our Sales Agreement with B. Riley and BTIG as a source of financing.

We intend to use the net proceeds from this offering, if any, for our commercial activities, including commercialization, manufacturing development and regulatory clearance of our products, research and development, and for other general corporate purposes, including for working capital, intellectual property protection and enforcement, capital expenditures, investments, acquisitions and collaborations.

Our expected use of the net proceeds from this offering represents our current intentions based upon our present plans and business conditions. The amounts and timing of our actual use of net proceeds will vary depending on numerous factors, including the success, cost and timing of the development and commercialization of our products and services, and any unforeseen delays or cash needs and other factors described under “Risk Factors” in this prospectus supplement and the documents incorporated by reference. As a result, our management will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the net proceeds of this offering. In addition, we might decide to postpone or not pursue our planned or other future activities if the net proceeds from this offering and the other sources of cash are less than, or do not last as long as, expected.

Pending their use, we intend to invest the net proceeds from this offering, if any, in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

DIVIDEND POLICY

We have never declared or paid cash dividends on our Class A common stock. We currently anticipate that we will retain any future earnings for the operation and expansion of our business. Accordingly, we do not currently anticipate declaring or paying any cash dividends on our Class A common stock for the foreseeable future. Any future determination relating to our dividend policy will be made at the discretion of our board of directors and will depend on then existing conditions, including our financial condition, results of operations, contractual restrictions (including in the Loan Agreement), capital requirements, business prospects and other factors our board of directors may deem relevant.

DILUTION

If you invest in our Class A common stock in this offering, your ownership interest will be diluted to the extent of the difference between the assumed public offering price per share in this offering and the as adjusted net tangible book value per share immediately after this offering.

As of September 30, 2026, our historical net tangible book value was approximately $31.7 million, or $0.30 per share of common stock. Historical net tangible book value per share is equal to the amount of our total tangible assets less our total liabilities, divided by 106,199,172, the combined number of Class A common stock and Class B common stock outstanding as of September 30, 2026.

After giving effect to the assumed sale of our Class A common stock in the aggregate amount of $50,000,000 at an assumed offering price of $0.7503 per share, the last reported sale price of our Class A common stock on The Nasdaq Global Market on November 4, 2026, and after deducting commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2026 would have been approximately $80.1 million, or $0.46 per share of common stock. This amount represents an immediate increase in our net tangible book value of $0.16 per share to our existing stockholders and immediate dilution in net tangible book value of approximately $0.29 per share to new investors in this offering.

The following table illustrates this calculation on a per share basis. The as adjusted information is illustrative only and will adjust based on the actual price to the public, the actual number of shares sold and other terms of the offering determined at the time shares of our Class A common stock are sold pursuant to this prospectus supplement. The shares sold in this offering, if any, will be sold from time to time at various prices.

Assumed public offering price per share		$0.7503
Historical net tangible book value per share as of September 30, 2026	$0.30	
Increase in net tangible book value per share attributable to the offering	$0.16	
As adjusted net tangible book value per share after giving effect to this offering		$ 0.46
Dilution in net tangible book value per share to investors participating in this offering		$ 0.29

The table above assumes for illustrative purposes that an aggregate of $50,000,000 of shares of our Class A common stock are sold during the term of the Sales Agreement with the Sales Agents at a price of $0.7503 per share, the last reported sale price of our Class A common stock on The Nasdaq Global Market on November 4, 2026. The shares subject to the Sales Agreement with the Sales Agents may be sold from time to time at various prices. An increase of $0.20 per share in the price at which the shares are sold from the assumed offering price of $0.7503 per share shown in the table above, assuming all of our Class A common stock in the aggregate amount of $50,000,000 during the term of the Sales Agreement with the Sales Agents is sold at that price, would increase our as adjusted net tangible book value per share after the offering to $0.50 per share and would increase the dilution in net tangible book value per share to new investors in this offering to $0.45 per share, after deducting commissions and estimated aggregate offering expenses payable by us. A decrease of $0.20 per share in the price at which the shares are sold from the assumed offering price of $0.7503 per share shown in the table above, assuming all of our Class A common stock in the aggregate amount of $50,000,000 during the term of the Sales Agreement with the Sales Agents is sold at that price, would decrease our as adjusted net tangible book value per share after the offering to $0.41 per share and would decrease the dilution in net tangible book value per share to new investors in this offering to $0.14 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only. The information discussed above is illustrative only and will adjust based on the actual public offering price and other terms of this offering determined at pricing.

The number of shares of common stock to be outstanding after this offering is based on an aggregate of 91,143,884 shares of our Class A common stock and 15,055,288 shares of our Class B common stock outstanding as of September 30, 2026 and excludes:

- 5,823,487 shares of Class A common stock issuable upon the vesting of restricted stock units outstanding as of September 30, 2026;
- 15,542,583 shares of Class A common stock issuable upon the exercise of options outstanding as of September 30, 2026, at a weighted average exercise price of $1.37 per share;
- 1,083,335 shares of Class A common stock issuable upon the exercise of warrants issued in March 2026 in connection with the Loan Agreement outstanding as of September 30, 2026, at an exercise price of $1.20 per share, of which warrants to purchase 520,835 shares are exercisable only following additional funding of the term loans under the Loan Agreement;
- 4,257,419 shares of Class A common stock issuable upon the exercise of warrants issued in our February 2025 offering outstanding as of September 30, 2026, at an exercise price of $1.33 per share; and
- 6,497,913 shares of Class A common stock reserved for future issuance under the Hyperfine, Inc. 2021 Equity Incentive Plan, or the 2021 Plan, as of September 30, 2026.

To the extent that any shares are issued upon the exercise of outstanding options or warrants, the vesting of outstanding restricted stock units, or otherwise pursuant to any grants made in the future under our 2021 Plan, you will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities may result in further dilution to our stockholders.

PLAN OF DISTRIBUTION

We have entered into the Sales Agreement with the Sales Agents, under which we may offer and sell up to $50,000,000 of shares of our Class A common stock under this prospectus supplement from time to time through or to the Sales Agents, as sales agents or principals. The Sales Agreement is filed as Exhibit 1.2 to our registration statement on Form S-3 of which this prospectus supplement forms a part, and is incorporated by reference in this prospectus supplement. Sales of shares of our Class A common stock, if any, under this prospectus supplement may be made by any method deemed to be an "at the market offering" as defined in Rule 415 under the Securities Act. We may instruct the Sales Agents not to sell Class A common stock if the sales cannot be effected at or above the price designated by us from time to time. We or the Sales Agents may suspend the offering of Class A common stock upon notice and subject to other conditions.

The Sales Agents will offer our Class A common stock subject to the terms and conditions of the Sales Agreement as agreed upon by us and the Sales Agents. Each time we wish to issue and sell Class A common stock under the Sales Agreement, we will notify the applicable Sales Agent of the number or dollar value of shares to be issued, the time period during which such sales are requested to be made, any limitation on the number of shares that may be sold in one day, any minimum price below which sales may not be made and other sales parameters as we deem appropriate. Once we have so instructed the Sales Agent, unless such Sales Agent declines to accept the terms of the notice, such Sales Agent has agreed to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such shares up to the amount specified on such terms. The obligations of the Sales Agents under the Sales Agreement to sell our Class A common stock are subject to a number of conditions that we must meet.

We will pay the Sales Agents commissions for their services in the sale of our Class A common stock at a commission rate equal to up to 3.0% of the gross sale price per share sold. We estimate that the total expenses for the offering, excluding compensation payable to the Sales Agents under the Sales Agreement, will be approximately $125,000. We also previously agreed to reimburse the Sales Agents for certain of their reasonable out-of-pocket expenses, including attorney's fees, in an amount of up to an aggregate of $75,000 incurred in connection with entering into the transactions contemplated by the Sales Agreement and up to $5,000 per calendar quarter, for ongoing diligence arising from the transactions contemplated by the Sales Agreement.

Settlement for sales of Class A common stock will occur on the first business day following the date on which any sales are made, or on some other date that is agreed upon by us and the applicable Sales Agent in connection with a particular transaction, in return for payment of the net proceeds to us. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

In connection with the sale of the Class A common stock on our behalf, each Sales Agent will be deemed to be an underwriter within the meaning of the Securities Act, and its compensation will be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to the Sales Agents against certain civil liabilities, including liabilities under the Securities Act.

The offering pursuant to the Sales Agreement will terminate upon the earlier of (1) the issuance and sale of all shares of our Class A common stock subject to the Sales Agreement; and (2) the termination of the Sales Agreement as permitted therein.

The prospectus supplement in electronic format may be made available on a website maintained by the Sales Agents. The Sales Agents and their affiliates may in the future provide various investment banking and other financial services for us and our affiliates, for which services they may in the future receive customary fees. To the extent required by Regulation M, the Sales Agents will not engage in any market making activities involving our Class A common stock while the offering is ongoing under this prospectus supplement. This summary of the material provisions of the Sales Agreement does not purport to be a complete statement of its terms and conditions.

LEGAL MATTERS

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, will pass upon the validity of the securities offered in this prospectus supplement with respect to the Class A common stock on behalf of Hyperfine, Inc. B. Riley Securities, Inc. and BTIG, LLC are being represented in this offering by Duane Morris LLP, New York, New York.

EXPERTS

The consolidated financial statements for the years ended December 31, 2025 and 2024, incorporated by reference in this prospectus supplement and elsewhere in the registration statement have been so incorporated by reference in reliance upon the report of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the reporting requirements of the Exchange Act and file annual, quarterly and current reports, proxy statements and other information with the SEC. SEC filings are available at the SEC's website at http://www.sec.gov.

This prospectus supplement is only part of a registration statement on Form S-3 that we have filed with the SEC under the Securities Act, and therefore omits certain information contained in the registration statement. We have also filed exhibits and schedules with the registration statement that are excluded from this prospectus supplement, and you should refer to the applicable exhibit or schedule for a complete description of any statement referring to any contract or other document. You may obtain a copy of the registration statement, including the exhibits and schedules, from the SEC's website.

We also maintain a website at http://www.hyperfine.io, through which you can access our SEC filings free of charge. The information set forth on our website is not part of this prospectus supplement.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with them. Incorporation by reference allows us to disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus supplement, and information that we file later with the SEC will automatically update and supersede this information. We filed a registration statement on Form S-3 under the Securities Act with the SEC with respect to the securities we may offer pursuant to this prospectus supplement. This prospectus supplement omits certain information contained in the registration statement, as permitted by the SEC. You should refer to the registration statement, including the exhibits, for further information about us and the securities we may offer pursuant to this prospectus supplement. Statements in this prospectus supplement regarding the provisions of certain documents filed with, or incorporated by reference in, the registration statement are not necessarily complete and each statement is qualified in all respects by that reference. Copies of all or any part of the registration statement, including the documents incorporated by reference or the exhibits, are available at the SEC's website at http://www.sec.gov. The documents we are incorporating by reference are:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2025 that we filed with the SEC on March 18, 2026;
- the portions of our definitive proxy statement on Schedule 14A that we filed with the SEC on April 8, 2026 that are deemed "filed" with the SEC under the Exchange Act;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2026 that we filed with the SEC on May 12, 2026, our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2026 that we filed with the SEC on August 6, 2026 and our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2026 that we filed with the SEC on November 9, 2026;
- our Current Reports on Form 8-K that we filed with the SEC on March 18, 2026 (under Items 1.01, 2.03, 3.02 and 9.01), May 21, 2026, and September 18, 2026 (except for the information furnished under Items 2.02 or 7.01 and the exhibits furnished thereto);
- the description of our securities contained in our Registration Statement on Form 8-A that we filed with the SEC on January 26, 2021, including any amendment or report filed for the purpose of updating such description, including Exhibit 4.2 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2025; and
- all reports and other documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this prospectus supplement and prior to the termination or completion of the offering of securities under this prospectus supplement (other than any information furnished, rather than filed) shall be deemed to be incorporated by reference in this prospectus supplement and to be a part hereof from the date of filing such reports and other documents.

The SEC file number for each of the documents listed above is 001-39949.

In addition, all reports and other documents filed by us pursuant to the Exchange Act after the date of the initial registration statement of which this prospectus supplement is a part and prior to effectiveness of the registration statement (other than any information furnished, rather than filed) shall be deemed to be incorporated by reference into this prospectus supplement.

Any statement contained in this prospectus supplement or in a document incorporated or deemed to be incorporated by reference into this prospectus supplement will be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in this prospectus supplement or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus supplement modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

You may request, orally or in writing, a copy of any or all of the documents incorporated herein by reference. These documents will be provided to you at no cost, by contacting:

Hyperfine, Inc.
351 New Whitfield Street
Guilford, Connecticut 06437
Telephone: (866) 796-6767

You may also access these documents on our website, http://www.hyperfine.io. The information contained on, or that can be accessed through, our website is not a part of this prospectus supplement. We have included our website address in this prospectus supplement solely as an inactive textual reference.

You should rely only on information contained in, or incorporated by reference into, this prospectus supplement and the accompanying base prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus supplement or incorporated by reference in this prospectus supplement. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make such offer or solicitation.



Up to $50,000,000

Class A Common Stock

PROSPECTUS SUPPLEMENT

B. Riley Securities **BTIG**

, 2026

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth an itemization of the various expenses, all of which we will pay, in connection with the issuance and distribution of the securities being registered. All of the amounts shown are estimated except the SEC Registration Fee and FINRA Filing Fee.

SEC Registration Fee	$3,666.32
FINRA Filing Fee	$6,821.24
Printing and Engraving Expenses	*
Legal Fees and Expenses	*
Accounting Fees and Expenses	*
Transfer Agent and Registrar Fees	*
Miscellaneous	*
Total	*

* Fees depend on number of issuances and amount of securities sold and accordingly cannot be estimated at this time.

Item 15. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law, or the DGCL, permits a corporation to indemnify its directors and officers against expenses, including attorneys' fees, judgments, fines and amounts paid in settlements actually and reasonably incurred by them in connection with any action, suit or proceeding brought by third parties. The directors or officers must have acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reason to believe their conduct was unlawful. In a derivative action, an action only by or in the right of the corporation, indemnification may be made only for expenses, including attorney's fees, actually and reasonably incurred by directors and officers in connection with the defense or settlement of an action or suit, and only with respect to a matter as to which they acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of the corporation. No indemnification shall be made if such person shall have been adjudged to be liable to the corporation, unless and only to the extent that the court in which the action or suit was brought determines upon application that the defendant officers or directors are fairly and reasonably entitled to indemnity for such expenses despite such adjudication of liability. The certificate of incorporation, as amended, of the registrant provides that the registrant may indemnify its directors, officers, employees or agents to the fullest extent permitted by applicable law and the amended and restated bylaws of the registrant provide that the registrant shall indemnify its directors and officers to the fullest extent permitted by applicable law.

Section 102(b)(7) of the DGCL permits a corporation to provide in its certificate of incorporation that a director or officer of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director or officer, except for liability (1) for any breach of the director's or officer's duty of loyalty to the corporation or its stockholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (3) for payments of unlawful dividends or unlawful stock purchases or redemptions, (4) for any transaction from which the director or officer derived an improper personal benefit, or (5) of officers in any action by or in the right of the corporation. The certificate of incorporation, as amended, of the registrant provides for such limitation of liability for directors and officers.

We have entered into indemnification agreements with each of our directors and executive officers in which we have agreed to indemnify and hold harmless, and also advance expenses as incurred, to the fullest extent

permitted under applicable law, against all expenses, losses and liabilities incurred by the indemnitee or on the indemnitee's behalf arising from the fact that such person is or was a director, officer, employee or agent of our company or our subsidiaries.

The indemnification rights set forth above shall not be exclusive of any other right which an indemnified person may have or hereafter acquire under any statute, our certificate of incorporation, as amended, our amended and restated bylaws, any agreement, any vote of stockholders or disinterested directors or otherwise.

We maintain standard policies of insurance that provide coverage (1) to our directors and officers against loss arising from claims made by reason of breach of duty or other wrongful act and (2) to us with respect to indemnification payments that we may make to such directors and officers.

Item 16. Exhibits

The exhibits to this registration statement are listed in the Exhibit Index to this registration statement, which Exhibit Index is hereby incorporated by reference.

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of

its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

(d) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act, or the Act, in accordance with the rules and regulations prescribed by the Commission under section 305(b)(2) of the Act.

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Filed Herewith	Incorporated by Reference herein from Form or Schedule	Filing Date	SEC/File Reg. Number
1.1*	Form of Underwriting Agreement.				
1.2	Amended and Restated At Market Issuance Sales Agreement, dated as of December 29, 2025, by and between Hyperfine, Inc. and B. Riley Securities, Inc. and BTIG, LLC		Form 8-K (Exhibit 10.1)	12/29/2025	001-39949
4.1	Certificate of Incorporation of Hyperfine, Inc., as amended.		Form 10-Q (Exhibit 3.1)	8/9/2024	001-39949
4.2	Amended and Restated Bylaws of Hyperfine, Inc.		Form 8-K (Exhibit 3.1)	6/12/2023	001-39949
4.3	Specimen Class A Common Stock Certificate.		Form S-4/A (Exhibit 4.2)	9/29/2021	333-259148
4.4	Amended and Restated Registration Rights Agreement, dated as of December 22, 2021, by and among Hyperfine, Inc. (formerly HealthCor Catalio Acquisition Corp.), HC Sponsor LLC and certain other security holders.		Form 10-Q (Exhibit 10.1)	8/11/2022	001-39949
4.5*	Form of Certificate of Amendment or Designation with respect to Preferred Stock.				
4.6*	Form of Senior Debt Security.				
4.7*	Form of Subordinated Debt Security.				
4.8	Form of Senior Indenture.		Form S-3 (Exhibit 4.9)	11/09/2023	333-275449
4.9	Form of Subordinated Indenture.		Form S-3 (Exhibit 4.10)	11/09/2023	333-275449
4.10*	Form of Warrant Agreement and Warrant Certificate.				
4.11*	Form of Rights Agreement and Rights Certificate.				
4.12*	Form of Unit Agreement and Unit.				
5.1	Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. with respect to the legality of the securities being registered.	X			
23.1	Consent of Grant Thornton LLP.	X			
23.2	Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included in Exhibit 5.1).	X			

Exhibit Number	Exhibit Description	Filed Herewith	Incorporated by Reference herein from Form or Schedule	Filing Date	SEC/File Reg. Number
24.1	Powers of Attorney (included on signature page to this registration statement).	X			
25.1*	The Statement of Eligibility on Form T-1 under the Trust Indenture Act of 1939, as amended, of the Trustee under the Senior Indenture will be incorporated herein by reference from a subsequent filing in accordance with Section 305(b)(2) of the Trust Indenture Act of 1939.				
25.2*	The Statement of Eligibility on Form T-1 under the Trust Indenture Act of 1939, as amended, of the Trustee under the Subordinated Indenture will be incorporated herein by reference from a subsequent filing in accordance with Section 305(b)(2) of the Trust Indenture Act of 1939.				
107	Filing Fee Table.	X			

* To be subsequently filed, if applicable, by an amendment to this registration statement or by a Current Report on Form 8-K.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Town of Guilford, State of Connecticut, on November 9, 2026.

HYPERFINE, INC.

By: /s/ Maria Sainz
Maria Sainz
President and Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned officers and directors of Hyperfine, Inc., hereby severally constitute and appoint Maria Sainz and Brett Hale, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for her or him and in her or his name, place and stead, and in any and all capacities, to sign any and all amendments (including, without limitation, post-effective amendments) to this registration statement (or any other registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as she or he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or her or his substitute or substitutes may lawfully do or cause to be done by virtue hereof.

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

/s/ Maria Sainz Maria Sainz	President, Chief Executive Officer and Director (Principal Executive Officer)	November 9, 2026
/s/ Brett Hale Brett Hale	Chief Administrative Officer, Chief Financial Officer, Treasurer and Corporate Secretary (Principal Financial Officer and Principal Accounting Officer)	November 9, 2026
/s/ Daniel J. Wolterman Daniel J. Wolterman	Chairperson	November 9, 2026
/s/ Jonathan M. Rothberg, Ph.D. Jonathan M. Rothberg, Ph.D.	Director	November 9, 2026
/s/ John Dahldorf John Dahldorf	Director	November 9, 2026
/s/ Ruth Fattori Ruth Fattori	Director	November 9, 2026

Exhibit 5.1

One Financial Center
Boston, MA 02111
617 542 6000
mintz.com

MINTZ

November 9, 2026

Hyperfine, Inc.
351 New Whitfield Street
Guilford, CT 06437

Ladies and Gentlemen:

We have acted as legal counsel to Hyperfine, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of a Registration Statement on Form S-3 (the "Registration Statement"), pursuant to which the Company is registering under the Securities Act of 1933, as amended (the "Securities Act"), the following:

(i) Class A common stock, $0.0001 par value per share (the "Common Stock");

(ii) preferred stock, $0.0001 par value per share (the "Preferred Stock");

(iii) senior debt securities, in one or more series (the "Senior Debt Securities"), which may be issued pursuant to an indenture to be dated on or about the date of the first issuance of Senior Debt Securities thereunder, by and between the Company and a trustee to be selected by the Company, in the form attached as Exhibit 4.8 to the Registration Statement, as such indenture may be amended or supplemented from time to time (the "Senior Indenture");

(iv) subordinated debt securities, in one or more series (the "Subordinated Debt Securities" and, together with the Senior Debt Securities, the "Debt Securities"), which may be issued pursuant to an indenture to be dated on or about the date of the first issuance of Subordinated Debt Securities thereunder, by and between the Company and a trustee to be selected by the Company, in the form attached as Exhibit 4.9 to the Registration Statement, as such indenture may be amended or supplemented from time to time (the "Subordinated Indenture");

(v) warrants to purchase Common Stock, Preferred Stock, and/or Debt Securities (the "Warrants"), which may be issued under warrant agreements, to be dated on or about the date of the first issuance of the applicable Warrants thereunder, by and between the Company and a warrant agent to be selected by the Company (each, a "Warrant Agreement");

(vi) rights to purchase Common Stock, Preferred Stock or Debt Securities (the "Rights"), which may be issued pursuant to a rights agreement and certificates issued thereunder, to be dated on or about the date of the first issuance of the applicable Rights thereunder, by and between the Company and a rights agent to be selected by the Company (each, a "Rights Agreement"); and

(vii) units comprised of one or more Debt Securities, shares of Common Stock, shares of Preferred Stock, Rights and Warrants, in any combination (the "Units"), which may be issued under unit agreements, to be dated on or about the date of the first issuance of the applicable Units thereunder, by and between the Company and a unit agent to be selected by the Company (each, a "Unit Agreement").

We have also acted as legal counsel for the Company in connection with the sales agreement prospectus supplement to the base prospectus included in the Registration Statement relating to the issuance and sale of shares of Common Stock having an aggregate offering price of up to $50,000,000 (the "ATM Shares") under an Amended and Restated At Market Issuance Sales Agreement, dated December 29, 2025, between the Company and B. Riley Securities, Inc. and BTIG, LLC (the "Sales Agreement").

The Common Stock, the Preferred Stock, the Debt Securities, the Warrants, the Rights and the Units are collectively referred to herein as the "Securities." The Registration Statement relates to the registration of the Securities to be offered and sold by the Company from time to time on a delayed or continuous basis pursuant to Rule 415 under the Securities Act. The maximum aggregate public offering price of the Securities being registered is $150,000,000. This opinion is being rendered in connection with the filing of the Registration Statement with the Commission. All capitalized terms used herein and not otherwise defined shall have the respective meanings given to them in the Registration Statement.

In connection with this opinion, we have examined the Company's Certificate of Incorporation, as amended (the "Certificate of Incorporation"), and Amended and Restated Bylaws (the "Bylaws"), each as currently in effect; such other records of the corporate proceedings of the Company and certificates of the Company's officers as we have deemed relevant; and the Registration Statement and the exhibits thereto.

In our examination, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as copies and the authenticity of the originals of such copies.

In our capacity as counsel to the Company in connection with such registration, we are familiar with the proceedings taken and proposed to be taken by the Company in connection with the authorization and issuance of the Securities. For purposes of this opinion, we have assumed that such proceedings will be timely and properly completed, in accordance with all requirements of applicable federal and Delaware laws, in the manner presently proposed.

The opinions set forth below are subject to the following exceptions, limitations and qualifications: (i) the effect of bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium or other similar laws now or hereafter in effect relating to or affecting the rights and remedies of creditors; (ii) the effect of general principles of equity, whether enforcement is considered in a proceeding in equity or at law, and the discretion of the court before which any proceeding therefor may be brought; (iii) the unenforceability under certain circumstances under law or court decisions of provisions providing for the indemnification of, or contribution to, a party with respect to a liability where such indemnification or contribution is contrary to public policy; (iv) we express no opinion concerning the enforceability of any waiver of rights or defenses with respect to stay, extension or usury laws; and (v) we express no opinion with respect to whether acceleration of any Debt Securities may affect the ability to collect any portion of the stated principal amount thereof which might be determined to constitute unearned interest thereon.

We have relied as to certain matters on information obtained from public officials, officers of the Company, and other sources believed by us to be responsible and we have assumed that the Senior Indenture and the Subordinated Indenture will be duly authorized, executed, and delivered by the respective trustees thereunder and the Warrant Agreement, Rights Agreement and Unit Agreement will be duly authorized, executed, and delivered by the warrant agent, rights agent and unit agent, respectively, thereunder. With respect to our opinion as to the Common Stock and Securities convertible into or exercisable for shares of Common Stock, we have assumed that, at the time of issuance and sale, a sufficient number of shares of Common Stock are authorized and available for issuance under the Company's Certificate of Incorporation as then in effect and that the consideration for the issuance and sale of the Common Stock (or Preferred Stock, Debt Securities convertible into Common Stock or Warrants or Rights exercisable for Common Stock or any Units of such Securities) is in an amount that is not less than the par value of the Common Stock. With respect to our opinion as to the Preferred Stock and Securities convertible into or exercisable for shares of Preferred Stock, we have assumed that, at the time of issuance and sale, a sufficient number of shares of Preferred Stock are authorized, designated and available for issuance and that the consideration for the issuance and sale of the Preferred Stock (or Debt Securities convertible into Preferred Stock or Warrants or Rights exercisable for Preferred Stock or any Units of such Securities) is in an amount that is not less than the par value of the Preferred Stock. We have also assumed that any Warrants, Rights and Units offered under the Registration Statement, and the related Warrant Agreement, Rights Agreement and Unit Agreement, as applicable, will be executed in the forms to be filed as exhibits to the Registration Statement or incorporated by reference therein. We have not independently verified any of the foregoing assumptions.

It is understood that this opinion is to be used only in connection with the offer and sale of Securities while the Registration Statement is effective under the Securities Act.

Our opinion is limited to the General Corporation Law of the State of Delaware and the laws of the State of New York. Without limiting the generality of the foregoing, we express no opinion with respect to (i) the qualification of the Securities under the securities or blue sky laws of any state or any foreign jurisdiction or (ii) the compliance with any federal or state law, rule or regulation relating to securities, or to the sale or issuance thereof.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters. The Securities may be issued from time to time on a delayed or continuous basis, but this opinion is based upon currently existing statutes, rules, regulations and judicial decisions, and we disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein.

Based upon the foregoing, we are of the opinion that:

1. With respect to the Common Stock (other than the ATM Shares), when (i) specifically authorized for issuance by the Company's Board of Directors or an authorized committee thereof (the "Authorizing Resolutions"), (ii) the Registration Statement, as finally amended (including all post-effective amendments), has become effective under the Securities Act, (iii) an appropriate prospectus supplement with respect to the applicable shares of Common Stock has been prepared, delivered and filed in compliance with the Securities Act and the applicable rules and regulations thereunder, (iv) if the applicable shares of Common Stock are to be sold pursuant to a purchase, underwriting or similar agreement (an "Underwriting Agreement"), such Underwriting Agreement with respect to the

applicable shares of Common Stock in the form filed as an exhibit to the Registration Statement, any post-effective amendment thereto or to a Current Report on Form 8-K, has been duly authorized, executed and delivered by the Company and the other parties thereto, (v) the terms of the sale of the Common Stock have been duly established in conformity with the Company's then operative Certificate of Incorporation and Bylaws and do not violate any applicable law or result in a default under or breach of any agreement or instrument binding on the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company, (vi) the Common Stock has been issued and sold as contemplated by the Registration Statement and the prospectus included therein, and (vii) the Company has received the consideration provided for in the Authorizing Resolutions and, if applicable, the Underwriting Agreement, the Common Stock will be validly issued, fully paid and nonassessable.

2. With respect to the Preferred Stock, when (i) specifically authorized for issuance by the Authorizing Resolutions, (ii) the Registration Statement, as finally amended (including all post-effective amendments), has become effective under the Securities Act, (iii) an appropriate prospectus supplement with respect to the applicable shares of Preferred Stock has been prepared, delivered and filed in compliance with the Securities Act and the applicable rules and regulations thereunder, (iv) if the applicable shares of Preferred Stock are to be sold pursuant to an Underwriting Agreement, such Underwriting Agreement with respect to the applicable shares of Preferred Stock in the form filed as an exhibit to the Registration Statement, any post-effective amendment thereto or to a Current Report on Form 8-K, has been duly authorized, executed and delivered by the Company and the other parties thereto, (v) an appropriate Certificate or Certificates of Amendment or Designation relating to a class or series of the Preferred Stock to be sold under the Registration Statement has been duly authorized and adopted and filed with the Secretary of State of the State of Delaware prior to the issuance of the Preferred Stock, (vi) the terms of issuance and sale of shares of such class or series of Preferred Stock have been duly established in conformity with the Company's then operative Certificate of Incorporation and Bylaws and do not violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company, (vii) shares of such class or series of Preferred Stock have been duly issued and sold as contemplated by the Registration Statement and the prospectus included therein, and (viii) the Company has received the consideration provided for in the Authorizing Resolutions and, if applicable, the Underwriting Agreement, the Preferred Stock will be validly issued, fully paid and nonassessable.

3. With respect to the Debt Securities, when (i) specifically authorized for issuance by the Authorizing Resolutions, (ii) the Registration Statement, as finally amended (including all post-effective amendments), has become effective under the Securities Act, (iii) the Senior Indenture or the Subordinated Indenture, whichever the case may be, has been duly authorized, executed and delivered by the Company, (iv) an appropriate prospectus supplement with respect to the applicable Debt Securities has been prepared, delivered and filed in compliance with the Securities Act and the applicable rules and regulations thereunder, (v) if the applicable Debt Securities are to be sold pursuant to an Underwriting Agreement, such Underwriting Agreement with respect to the applicable Debt Securities in the form filed as an exhibit to the Registration Statement, any post-effective amendment thereto or to a Current Report on Form 8-K, has been duly authorized, executed and delivered by the Company and the other parties thereto, (vi) the terms of the Debt Securities and of their issuance and sale have been duly established in conformity with the Senior Indenture or the Subordinated Indenture, whichever the case may be, and do not violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over

the Company, (vii) such Debt Securities have been duly executed and authenticated in accordance with the Senior Indenture or the Subordinated Indenture, whichever the case may be, and issued and sold as contemplated in the Registration Statement and the prospectus included therein, (viii) the Senior Indenture or the Subordinated Indenture, whichever the case may be, relating to the Debt Securities has been qualified under the Trust Indenture Act of 1939, as amended, and (ix) the Company has received the consideration provided for in the Authorizing Resolutions and, if applicable, the Underwriting Agreement, the Debt Securities will constitute valid and legally binding obligations of the Company.

4. With respect to the Warrants, when (i) specifically authorized for issuance by the Authorizing Resolutions, (ii) the Registration Statement, as finally amended (including all post-effective amendments), has become effective under the Securities Act, (iii) the Warrant Agreement relating to the Warrants has been duly authorized, executed, and delivered by the Company, (iv) an appropriate prospectus supplement with respect to the applicable Warrants has been prepared, delivered and filed in compliance with the Securities Act and the applicable rules and regulations thereunder, (v) if the applicable Warrants are to be sold pursuant to an Underwriting Agreement, such Underwriting Agreement with respect to the applicable Warrants in the form filed as an exhibit to the Registration Statement, any post-effective amendment thereto or to a Current Report on Form 8-K, has been duly authorized, executed and delivered by the Company and the other parties thereto, (vi) the terms of the Warrants and of their issuance and sale have been duly established in conformity with the Warrant Agreement and do not violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company, (vii) the Warrants have been duly executed and countersigned in accordance with the Warrant Agreement and issued and sold as contemplated by the Registration Statement and the prospectus included therein, and (viii) the Company has received the consideration provided for in the Authorizing Resolutions and, if applicable, the Underwriting Agreement, the Warrants will constitute valid and legally binding obligations of the Company.

5. With respect to the Rights, when (i) specifically authorized for issuance by the Authorizing Resolutions, (ii) the Registration Statement, as finally amended (including all post-effective amendments), has become effective under the Securities Act, (iii) the Rights Agreement and any certificates relating to the Rights have been duly authorized, executed, and delivered by the Company, (iv) an appropriate prospectus supplement with respect to the applicable Rights has been prepared, delivered and filed in compliance with the Securities Act and the applicable rules and regulations thereunder, (v) if the applicable Rights are to be sold pursuant to an Underwriting Agreement, such Underwriting Agreement with respect to the applicable Rights in the form filed as an exhibit to the Registration Statement, any post-effective amendment thereto or to a Current Report on Form 8-K, has been duly authorized, executed and delivered by the Company and the other parties thereto, (vi) the terms of the Rights and of their issuance and sale have been duly established in conformity with the Rights Agreement and any rights certificates and do not violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company, (vii) the Rights have been duly executed and countersigned in accordance with the Rights Agreement and issued and sold as contemplated by the Registration Statement and the prospectus included therein, and (viii) the Company has received the consideration provided for in the Authorizing Resolutions and, if applicable, the Underwriting Agreement, the Rights will constitute valid and legally binding obligations of the Company.

6. With respect to the Units, when (i) specifically authorized for issuance by the Authorizing Resolutions, (ii) the Registration Statement, as finally amended (including all post-effective amendments), has become effective under the Securities Act, (iii) the Unit Agreement relating to the Units has been duly authorized, executed, and delivered by the Company, (iv) an appropriate prospectus supplement with respect to the applicable Units has been prepared, delivered and filed in compliance with the Securities Act and the applicable rules and regulations thereunder, (v) if the applicable Units are to be sold pursuant to an Underwriting Agreement, such Underwriting Agreement with respect to the applicable Units in the form filed as an exhibit to the Registration Statement, any post-effective amendment thereto or to a Current Report on Form 8-K, has been duly authorized, executed and delivered by the Company and the other parties thereto, (vi) the terms of the Units and of their issuance and sale have been duly established in conformity with the Unit Agreement and do not violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company, (vii) the Units have been duly executed and countersigned in accordance with the Unit Agreement and issued and sold as contemplated by the Registration Statement and the prospectus included therein, and (viii) the Company has received the consideration provided for in the Authorizing Resolutions and, if applicable, the Underwriting Agreement, the Units will constitute valid and legally binding obligations of the Company.

7. With respect to the ATM Shares, such ATM Shares have been duly authorized for issuance and, when (a) the Registration Statement has become effective under the Securities Act, and (b) the ATM Shares have been issued and paid for in accordance with the terms and conditions of the Sales Agreement, the ATM Shares will be validly issued, fully paid and non-assessable.

We understand that you wish to file this opinion with the Commission as an exhibit to the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K promulgated under the Securities Act and to reference the firm's name under the caption "Legal Matters" in the prospectus and the prospectus supplement which form part of the Registration Statement, and we hereby consent thereto. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
Mintz, Levin, Cohn, Ferris,
Glovsky and Popeo, P.C.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated March 18, 2026 with respect to the consolidated financial statements of Hyperfine, Inc. included in the Annual Report on Form 10-K for the year ended December 31, 2025 which are incorporated by reference in this Registration Statement. We consent to the incorporation by reference of the aforementioned report in this Registration Statement, and to the use of our name as it appears under the caption "Experts."

/s/ GRANT THORNTON LLP

San Jose, California
November 9, 2026

Calculation of Filing Fee Tables

S-3

Hyperfine, Inc.

Table 1: Newly Registered and Carry Forward Securities ☐Not Applicable

		Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial Effective Date	Filing Fee Previously Paid in Connection with Unsold Securities to be Carried Forward
Newly Registered Securities													
		Equity	Class A common stock, par value $0.0001 per share	457(o)									
		Equity	Preferred stock, par value $0.0001 per share	457(o)									
		Debt	Debt Securities	457(o)									
		Equity	Warrants	457(o)									
		Equity	Rights	457(o)									
		Equity	Units	457(o)									
Fees to be Paid	1	Unallocated (Universal) Shelf		457(o)			$ 42,141,592.82	0.000087	$ 3,666.32				
Fees Previously Paid													
Carry Forward Securities													
Carry Forward Securities		Equity	Class A common stock, par value $0.0001 per share	415(a)(6)						S-3	333-275449	11/22/2023	
Carry Forward Securities		Equity	Preferred stock, par value $0.0001 per share	415(a)(6)						S-3	333-275449	11/22/2023	
Carry Forward Securities		Debt	Debt Securities	415(a)(6)						S-3	333-275449	11/22/2023	
Carry Forward Securities		Equity	Warrants	415(a)(6)						S-3	333-275449	11/22/2023	
Carry Forward Securities		Equity	Rights	415(a)(6)						S-3	333-275449	11/22/2023	
Carry Forward Securities		Equity	Units	415(a)(6)						S-3	333-275449	11/22/2023	
Carry Forward Securities	2	Unallocated (Universal) Shelf		415(a)(6)			$ 107,858,407.18			S-3	333-275449	11/22/2023	$ 15,919.90
						Total Offering Amounts:	$ 150,000,000.00		$ 3,666.32				
									Total Fees Previously Paid:	$ 0.00			
									Total Fee Offsets:	$ 0.00			
									Net Fee Due:	$ 3,666.32			

Offering Note

[1] (1) There are being registered hereunder such indeterminate number of shares of Class A common stock, par value $0.0001 per share (the "Class A common stock"), such indeterminate number of shares of preferred stock, par value $0.0001 per share, such indeterminate principal amount of debt securities, such indeterminate number of warrants to purchase Class A common stock, preferred stock and/or debt securities, such indeterminate number of rights to purchase Class A common stock, preferred stock or other securities, and such indeterminate number of units, as shall have an aggregate initial offering price not to exceed $150,000,000. The securities registered hereunder also include such indeterminate number of shares of Class A common stock and preferred stock and such indeterminate amount of debt securities as may be issued upon conversion of, or in exchange for, or upon exercise of, as applicable, any securities registered hereunder that provide for such conversion, exchange or exercise. Any securities registered hereunder may be sold separately or as units with other securities registered hereunder. The securities registered hereunder include up to $50,000,000

of Class A common stock that may be issued and sold from time to time under the Amended and Restated At Market Issuance Sales Agreement, dated December 29, 2025, with B. Riley Securities, Inc. and BTIG, LLC, which amount is included in, and not in addition to, the $150,000,000 aggregate amount registered hereunder. Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement also covers such indeterminate number of additional securities as may become issuable to prevent dilution resulting from stock splits, stock dividends and similar transactions. (2) The proposed maximum offering price per unit and the proposed maximum aggregate offering price per class of security will be determined from time to time by the registrant in connection with the issuance by the registrant of the securities registered hereunder and are not specified as to each class of security pursuant to General Instruction II.D. of Form S-3 under the Securities Act. (3) Pursuant to Rule 415(a)(6) under the Securities Act, this registration statement includes $107,858,407.18 of unsold securities (the "Unsold Securities") previously registered by the registrant on its registration statement on Form S-3 (File No. 333-275449), which was initially filed on November 9, 2023 and declared effective on November 22, 2023 (the "Prior Registration Statement"), which registered an aggregate of $150,000,000 of securities, of which $42,141,592.82 of shares of Class A common stock have been sold under the Prior Registration Statement as of the date of filing of this registration statement. The registrant previously paid a filing fee of $15,919.90 in connection with the Unsold Securities under the Prior Registration Statement, which will continue to be applied to the Unsold Securities. Accordingly, a filing fee is being paid herewith only with respect to $42,141,592.82 of newly registered securities. Pursuant to Rule 415(a)(6), the offering of the Unsold Securities under the Prior Registration Statement will be deemed terminated as of the date of effectiveness of this registration statement. If the registrant sells any Unsold Securities pursuant to the Prior Registration Statement after the date of filing, and prior to the date of effectiveness, of this registration statement, the registrant will file a pre-effective amendment to this registration statement updating the amount of Unsold Securities to be included in this registration statement pursuant to Rule 415(a)(6) and the amount of new securities to be registered on this registration statement.

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[2] (3) Pursuant to Rule 415(a)(6) under the Securities Act, this registration statement includes $107,858,407.18 of unsold securities (the "Unsold Securities") previously registered by the registrant on its registration statement on Form S-3 (File No. 333-275449), which was initially filed on November 9, 2023 and declared effective on November 22, 2023 (the "Prior Registration Statement"), which registered an aggregate of $150,000,000 of securities, of which $42,141,592.82 of shares of Class A common stock have been sold under the Prior Registration Statement as of the date of filing of this registration statement. The registrant previously paid a filing fee of $15,919.90 in connection with the Unsold Securities under the Prior Registration Statement, which will continue to be applied to the Unsold Securities. Accordingly, a filing fee is being paid herewith only with respect to $42,141,592.82 of newly registered securities. Pursuant to Rule 415(a)(6), the offering of the Unsold Securities under the Prior Registration Statement will be deemed terminated as of the date of effectiveness of this registration statement. If the registrant sells any Unsold Securities pursuant to the Prior Registration Statement after the date of filing, and prior to the date of effectiveness, of this registration statement, the registrant will file a pre-effective amendment to this registration statement updating the amount of Unsold Securities to be included in this registration statement pursuant to Rule 415(a)(6) and the amount of new securities to be registered on this registration statement.

Table 2: Fee Offset Claims and Sources ☑Not Applicable

		Registrant or Filer Name	Form or Filing Type	File Number	Initial Filing Date	Filing Date	Fee Offset Claimed	Security Type Associated with Fee Offset Claimed	Security Title Associated with Fee Offset Claimed	Unsold Securities Associated with Fee Offset Claimed	Unsold Aggregate Offering Amount Associated with Fee Offset Claimed	Fee Paid with Fee Offset Source
Rules 457(b) and 0-11(a)(2)												
Fee Offset Claims												
Fee Offset Sources												
Rule 457(p)												
Fee Offset Claims												
Fee Offset Sources												

Table 3: Combined Prospectuses ☑Not Applicable

	Security Type	Security Class Title	Amount of Securities Previously Registered	Maximum Aggregate Offering Price of Securities Previously Registered	Form Type	File Number	Initial Effective Date