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

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

INTENSITY THERAPEUTICS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

46-1488089

(I.R.S. Employer Identification Number)

1 Enterprise Drive, Suite 430 Shelton, CT 06484-4779

(203) 221-7381

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

Lewis H. Bender President, Chief Executive Officer and Chairman 1 Enterprise Drive, Suite 430 Shelton, CT 06484-4779 (203) 221-7381

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copy to: Ivan K. Blumenthal Jeffrey P. Schultz Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. 919 Third Avenue New York, New York 10022 (212) 935-3000

Approximate date of commencement of proposed sale to public: From time to time after this Registration Statement becomes effective.

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 (Check one):

Large accelerated filer		Accelerated filer	Ο
Non-accelerated filer	Π	Smaller reporting company	Π
		Emerging growth company	D

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. \Box

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 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.

The information in this prospectus is not complete and subject to change. Neither we nor the Selling Stockholders may 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 it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED JULY 3, 2024

PRELIMINARY PROSPECTUS

INTENSITY THERAPEUTICS, INC. Up to 394,500 Shares of Common Stock

This prospectus relates to the offering and resale from time to time by the selling stockholders identified in this prospectus (the "Selling Stockholders") of up to 394,500 shares of common stock, \$0.0001 par value per share ("common stock"), of Intensity Therapeutics, Inc. (the "Company"), composed of (i) 273,000 shares issuable upon the exercise of warrants issued by the Company as compensation for consulting services (the "Consultant Warrants"), (ii) 42,500 shares issuable upon the exercise of warrants issued by the Company as an incentive for holders to participate in the Company's Series A preferred financing (the "Series A Warrants"), (iii) 49,000 shares issuable upon the exercise of warrants issued by the Company as compensation for placement agents (the "Placement Agent Warrants"), and (iv) 30,000 shares issuable upon the exercise of warrants issued by the Company to purchasers in a convertible note financing (the "Note Warrants" and, collectively with the Consultant Warrants, the "Warrants").

The Selling Stockholders may offer, sell or distribute all or a portion of the shares of common stock registered hereby publicly or through private transactions at prevailing market prices or at negotiated pries. We provide more information about how the Selling Stockholders may sell their respective shares of common stock in the section entitled "Plan of Distribution."

We will pay certain fees and expenses in connection with the registration of the shares of common stock offered hereby, and we will not receive any proceeds from the Selling Stockholders' sale of the shares of common stock offered hereby.

Our common stock is traded on The Nasdaq Capital Market under the symbol "INTS." On July 2, 2024, the last reported sale price of our common stock on The Nasdaq Capital Market was \$4.87 per share.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading $\frac{Risk Factors}{Risk Factors}$ beginning on page $\frac{7}{2}$ of this prospectus and under similar headings in the other documents that are incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2024.

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You should rely only on the information contained in this prospectus. No one has been authorized to provide you with information that is different from that contained in this prospectus. This prospectus is dated as of the date set forth on the cover hereof. You should not assume that the information contained in this prospectus is accurate as of any date other than that date.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission ("SEC") under the Securities Act of 1933, as amended (the "Securities Act"). Under this prospectus, the Selling Stockholders may, from time to time, sell shares of our common stock described in this prospectus in one or more offerings. This prospectus provides you with a general description of the securities offered by the Selling Stockholders. Any prospectus supplement may also add, update or change information contained in this prospectus. Any statement that we make in this prospectus will be modified or superseded by any inconsistent statement made by us in a prospectus supplement.

The registration statement we filed with the SEC includes exhibits that provide more detail of the matters discussed in this prospectus. This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part. You should read this prospectus and the related exhibits filed with the SEC and any prospectus supplement, together with additional information described under the headings "Where You Can Find More Information" and "Incorporation by Reference" before making your investment decision.

You should rely only on the information incorporated by reference or provided in this prospectus, any prospectus supplement and the registration statement. Neither we nor any Selling Stockholder has authorized anyone else to provide you with different or additional information other than that contained in or incorporated by reference in this prospectus. If anyone provides you with different or inconsistent information, you should not rely on it. Offers to sell, and solicitations of offers to buy, our common stock are being made only in jurisdictions where offers and sales are permitted. You should assume that the information in this prospectus and any prospectus supplement, or incorporated by reference, is accurate only as of the respective dates of those documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

PROSPECTUS SUMMARY

This prospectus summary highlights selected information appearing elsewhere in this prospectus and in documents we file with the SEC that are incorporated by reference in this prospectus. Because it is a summary, it may not contain all of the information that may be important to you. To understand this offering fully, you should read this entire prospectus carefully, including the information incorporated by reference herein, the information set forth under the heading "Risk Factors" and our financial statements and the related notes thereto incorporated by reference in this prospectus.

Unless the context otherwise requires, all references in this prospectus to the "Company," "Intensity," "we," "our," "ours," and "us" refer to Intensity Therapeutics, Inc.

Overview

We are a late-stage clinical biotechnology company passionately committed to applying scientific leadership in the field of localized cancer reduction leading to anti-cancer immune activation. Our new approach involves the direct injection into tumors of a unique product created from our DfuseRxSM discovery platform.

IT treatment, or treatment designed to contain a drug inside a tumor without spreading to the rest of the body, has been an objective of clinicians since discovery of chemotherapeutic agents. The challenge with IT treatment approaches is that a tumor's lipophilic, high fat, dense and pressurized microenvironment is incompatible with and does not absorb water-based products. We believe that this drug delivery challenge limits the effectiveness of prior and current IT treatments, which involve injecting aqueous drugs into a tumor without sufficient consideration of the tumor environment (regardless of the drug's mechanism or approach, i.e. the stimulation of an inflammatory response or efforts to attract immune cells into a hostile live tumor). Accordingly, there remains a continued unmet need for the development of direct IT therapies for solid tumors that provide high local killing efficacy coupled with nontoxic systemic anti-cancer effects. We believe we have created a product candidate with the necessary chemistry to overcome this local delivery challenge and achieve tumor killing with systemic immune activation and T-cell repertoire expansion in certain cancers.

Our platform creates patented anti-cancer product candidates comprising active anti-cancer agents and amphiphilic molecules. Amphiphilic molecules have two distinct components: one part is soluble in water and the other is soluble in fat or oils. When an amphiphilic compound is mixed with therapeutic agents, such as chemotherapies, the agents also become soluble in both fat and water. Our product candidates include novel formulations consisting of potent anti-cancer drugs mixed together with these amphiphilic agents.

Our lead product candidate, INT230-6, is primarily comprised of three components: (i) cisplatin, a proven anti-cancer cytotoxic agent, (ii) vinblastine sulfate, also a proven anti-cancer cytotoxic agent, and (iii) an amphiphilic molecule ("SHAO"), which enables the two cytotoxic agents to disperse through a tumor and diffuse into cancer cells following a direct intratumoral injection. These three components are mixed and combined into one vial at a fixed ratio. Cisplatin and vinblastine sulfate are both generic and available to purchase in bulk supply commercially. The FDA has approved both drugs as intravenous agents for several types of cancers. Cisplatin was first approved in 1978 for testicular cancer, and is also approved in ovarian and bladder cancer. The drug is also used widely in several other cancers including pancreatic and bile duct cancer. Vinblastine sulfate was first approved in 1965 and is also approved in generalized Hodgkin's disease, lymphocytic lymphoma, advanced carcinoma of the testis, and certain types of sarcoma. The drug is also used in breast and lung cancer.

In 2017, we initiated a Phase 1/2 dose escalation study, IT-01, using INT230-6 in the United States under an investigational new drug application authorized by the FDA and in Canada under a preclinical trial application approved by Health Canada. Study IT-01 tested the safety and efficacy of INT230-6 in patients with refractory or metastatic cancers, and enrolled 110 patients in three arms: (i) INT230-6 used as a monotherapy, (ii) INT230-6 in combination with Merck's Keytruda® (pembrolizumab), and (iii) INT230-6 in combination with BMS Yervoy® (ipilimumab). We completed enrollment of IT-01 in June 2022, locked the IT-01 database in February 2023 and finalized the clinical study report in September 2023. We delivered the combination-specific reports and other information to our partners in the fourth quarter of 2023.

In 2021, we initiated a Phase 2 randomized study that tested INT230-6 as a monotherapy treatment in early-stage breast cancer for patients not suitable for presurgical chemotherapy, or the INVINCIBLE-2 Study. The study enrolled 91 subjects and the database was locked in November 2023. The key endpoint was whether INT230-6 could reduce a patient's cancer compared to no treatment (the current standard of care ("SOC")) or a saline injection. Substantial reduction of cancer presurgically in aggressive forms of cancer has been shown to correlate with delaying disease recurrence. Other endpoints of the INVINCIBLE-2 Study were to understand the percentage of necrosis that can be achieved in tumors for a given dose, especially tumors larger than two centimeters in longest diameter, and whether either a local or whole body anti-cancer immune response could be induced. The INVINCIBLE-2 Study demonstrated a high order of necrosis in presurgical breast cancer tumors in the period from diagnosis to surgery, with some patients experiencing greater than 95% necrosis of the tumor. Data from the INVINCIBLE-2 Study demonstrated that INT230-6 had a favorable safety profile. An increase of certain types of immune cells (CD4+ and NK T-cells) in the tumor and blood was also shown. There was also an increase in the T-cells repertoire relative to control.

In mid-2024, we intend on initiating a Phase 3 open-label, randomized study, or the INVINCIBLE-3 Study, testing INT230-6 as monotherapy compared to the SOC drugs in second and third line treatment for certain soft tissue sarcoma subtypes. We plan to enroll 333 patients with an endpoint of overall survival. We have screened and qualified over 30 sites for the INVINCIBLE-3 Study, and are in contract negotiations to approve and activate these sites, which we estimate could take between two to six months per site.

Also in mid-2024, we intend on initiating a Phase 2/3 program testing INT230-6 in combination with the SOC treatment (chemotherapy/immunotherapy) compared to SOC alone in women with triple negative breast cancer in presurgical (neoadjuvant) breast cancer. The endpoint for the Phase 2 portion of the study, or the INVINCIBLE-4 Study, is the change in the pathological complete response rate for the combination compared to the SOC alone. We expect to initiate the INVINCIBLE-4 Study in mid-2024, which will provide data to size a Phase 3 study. We are in the process of screening and qualifying sites for the INVINCIBLE-4 Study.

We have also successfully developed Phase 3 quality analytical methods for the three INT230-6 components and successfully manufactured a largescale batch of INT230-6. In a meeting with the FDA in the fourth quarter of 2023, we agreed on a chemical manufacture and control ("CMC") plan for Phase 3 and product registration for our three key ingredients and INT230-6. If we successfully execute the agreed upon plan, the CMC portion of a New Drug Application ("NDA") should be acceptable to the FDA for product approval and registration (subject to final NDA review). In the first quarter of 2024, a portion of the batch was successfully delivered to our depot vendor, who will supply INT230-6 for the INVINCIBLE-3 and INVINCIBLE-4 studies.

Descriptions of Warrants

Consultant Warrants

Between July 31, 2020 and April 4, 2024, we issued warrants to purchase an aggregate of 273,000 shares of common stock as compensation for consulting services. The Consultant Warrants have a weighted average exercise price of \$7.41 per share. The Consultant Warrants vest according to a variety of schedules, all vesting in full within four years of issuance, and expire between three and ten years of issuance.

Series A Warrants

On May 19, 2015, we entered into a stock purchase agreement (the "Series A Agreement"), pursuant to which we issued shares of our Series A preferred stock (the "Series A Preferred Shares") to an investor. In June 2015, we entered into joinders to the Series A Agreement with additional investors, pursuant to which we sold additional Series A Preferred Shares and, to investors who purchased the Series A Preferred Shares prior to June 30, 2015, Series A Warrants. The Series A Warrants have an exercise price of \$5.00 per share, were exercisable immediately upon issuance and expire on December 31, 2025.

Placement Agent Warrants

On March 11, 2015, we issued Placement Agent Warrants to placement agents in connection with the sale of Series A Preferred Shares (the "2015 Placement Agent Warrants"). The 2015 Placement Agent Warrants have an exercise price of \$2.00 per share, were exercisable immediately upon issuance and expire on December 31, 2024. On September 9, 2016, we issued Placement Agent Warrants to a placement agent as compensation in connection with our Series A financing (the "2016 Placement Agent Warrants"). The 2016 Placement Agent Warrants have an exercise price of \$4.00, were exercisable immediately upon issuance and expire on September 9, 2026.

Note Warrants

One January 1, 2023, we issued Note Warrants to investors in connection with their purchase of convertible notes in November 2022. The Note Warrants have an exercise price of \$12.50 per share, were exercisable immediately upon issuance and expire three years from the date of issuance.

Corporate Information

Intensity, a Delaware corporation, was incorporated on November 30, 2012 upon the conversion of Intensity Therapeutics LLC, its predecessor.

Our principal executive offices are located at 1 Enterprise Drive, Suite 430, Shelton, CT 06484-4779 and our telephone number is (203) 221-7381. Our website address is *www.intensitytherapeutics.com*. Our website and the information on, or that can be accessed through our website, will not be deemed to be incorporated by reference into this registration statement or any other document we file or furnish to the SEC.

We make available on our website, free of charge, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Our SEC reports can be accessed through the "Investors" section of our website. The SEC maintains a website that contains reports, proxy and information statements and other information regarding our filings at http://www.sec.gov.

Implications of Being an Emerging Growth Company and Smaller Reporting Company

As a company with less than \$1.235 billion in revenue during our last fiscal year, we qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act (the "JOBS Act") enacted in April 2012. An "emerging growth company" may take advantage of exemptions from some of the reporting requirements that are otherwise applicable to public companies. These exceptions include:

- being permitted to present only two years of audited financial statements and only two years of related Management's Discussion and Analysis of Financial Condition and Results of Operations in this prospectus;
- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes–Oxley Act of 2002, as amended (the "Sarbanes– Oxley Act");
- · reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden
 parachute payments not previously approved.

We may take advantage of these provisions until the last day of our fiscal year following the fifth anniversary of our first sale of common equity securities pursuant to an effective registration statement under the Securities Act. However, if certain events occur prior to the end of such five-year period, including if we become a "large accelerated filer," our annual gross revenue exceeds \$1.235 billion or we issue more than \$1.0 billion of non-

convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. We have elected to avail ourselves of this exemption.

Finally, we are a "smaller reporting company" (and may continue to qualify as such even after we no longer qualify as an emerging growth company) and accordingly may provide less public disclosure than larger public companies. As a result, the information that we provide to our stockholders may be different than you might receive from other public reporting companies in which you hold equity interests.

Resale of Common Stock	
Common Stock Offered by the Selling Stockholders	Up to 394,500 shares.
Use of Proceeds	We will not receive any of the proceeds from the sale of the shares of common stock by the Selling Stockholders. However, we may receive the proceeds from any exercise of any of the Warrants if the Selling Stockholders do not exercise their Warrants on a cashless basis. See the section of this prospectus titled "Use of Proceeds."
Market for Our Shares of Common Stock	Our common stock is listed on the Nasdaq Capital Market under the symbol "INTS."
Risk Factors	Any investment in the securities offered hereby is speculative and involves a high degree of risk. You should carefully consider the information set forth under "Risk Factors" and elsewhere in this prospectus.

RISK FACTORS

Investing in our securities involves risk. Please see the risk factors set forth under the heading "Item 1A. Risk Factors" beginning on page 48 of our Annual Report on Form 10-K for the year ended December 31, 2023 filed with the SEC on March 14, 2024 (our "2023 Form 10-K"), as updated by our subsequent filings with the SEC under the Exchange Act, which are incorporated by reference in this prospectus, and any updates to those risk factors included from time to time in our periodic and current reports filed with the SEC and incorporated by reference in this prospectus. Before making an investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus supplement. The risks and uncertainties we have described are not the only ones facing our Company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations.

SPECIAL NOTE REGARDING FORWARD-LOOKING INFORMATION

This prospectus, any prospectus supplement and the documents we have filed with the SEC that we incorporate by reference in this prospectus contain "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act that involve substantial risks and uncertainties. In some cases, forward-looking statements are identified by the words "aim," "anticipate," "assume," "believe," "contemplate," "could," "due," "estimate," "expect," "goal," "intend," "may," "objective," "plan," "predict," "potential," "positioned," "seek," "should," "target," "will," "would," or the negative of these terms, or other comparable terminology intended to identify statements about the future. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements.

Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus and the documents that we have filed with the SEC that are incorporated by reference, such statements are based on a combination of facts and factors currently known by us and our expectations of the future, about which we cannot be certain. Forward-looking statements include statements about:

- the initiation, timing, progress and results of future preclinical studies and clinical trials, and our research and development programs;
- our need to raise additional funding before we can expect to generate any revenues from product sales;
- · our plans to develop and commercialize our product candidates;
- the timing or likelihood of regulatory filings and approvals;
- · the ability of our research to generate and advance additional product candidates;
- the implementation of our business model, strategic plans for our business, product candidates and technology;
- our commercialization, marketing and manufacturing capabilities and strategy;
- · the rate and degree of market acceptance and clinical utility of our system;
- our competitive position;
- our intellectual property position;
- · developments and projections relating to our competitors and our industry;
- · our ability to maintain and establish collaborations or obtain additional funding;
- · our expectations related to the use of our cash and cash equivalents and investments;
- · our estimates regarding expenses, future revenue, capital requirements and needs for additional financing; and
- other factors discussed herein and under the heading "Risk Factors" in our 2023 Form 10-K and in our other reports filed with the SEC.

The factors discussed herein, including those risks described in "Item 1A. Risk Factors" in the 2023 Form 10-K and in the Company's other periodic filings with the SEC, which are available for review at *www.sec.gov* under "Search for Company Filings," could cause actual results and developments to be materially different from those expressed or implied by such statements. All forward-looking statements attributable to us are expressly qualified in their entirety by these and other factors. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date they were made. Except as required by law, the Company undertakes no



obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

You should read these factors and the other cautionary statements made in the documents we incorporate by reference as being applicable to all related forward-looking statements wherever they appear in this prospectus, any prospectus supplement, and any document incorporated by reference. We caution you that we do not undertake any obligation to update forward-looking statements made by us, except as required by law.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of any common stock offered by this prospectus, but we will bear all fees and expenses incident to our obligation to register the shares of common stock being offered for resale hereunder by the Selling Stockholders.

We may receive proceeds from the exercise of the Warrants held by the Selling Stockholders and issuance of the underlying shares. If all of the Warrants were exercised for cash in full, the proceeds would be approximately \$2.8 million. We intend to use the net proceeds of such warrant exercises, if any, for research and development, general and administrative expenses, and for working capital purposes. We can make no assurances that any of the Warrants will be exercised, or if exercised, that they will be exercised for cash.

DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock consists of 135,000,000 shares of common stock, \$0.0001 par value per share, and 15,000,000 shares of preferred stock, \$0.0001 par value per share. A description of the material terms and provisions of our Sixth Amended and Restated Certificate of Incorporation (the "Charter") and Second Amended and Restated Bylaws (the "Bylaws") affecting the rights of holders of our capital stock is set forth below. The description is intended as a summary and is qualified in its entirety by reference to our Charter and Bylaws.

Common Stock

Voting Rights. The common stock is entitled to one vote per share on any matter that is submitted to a vote of our stockholders. The Charter does not provide for cumulative voting for the election of directors. The Charter establishes a classified board of directors that is divided into three classes with staggered three-year terms. Only the directors in one class will be subject to election by a plurality of the votes cast at each annual meeting of our stockholders, with the directors in the other classes continuing for the remainder of their respective three-year terms. The affirmative vote of holders of at least 66 2/3% of the voting power of all of the then outstanding shares of capital stock, voting as a single class, will be required to amend certain provisions of our Charter, including provisions relating to amending our Bylaws, the classified structure of our board of directors, the size of our board of directors, removal of directors, director liability, vacancies on our board of directors, special meetings, stockholder notices, actions by written consent and exclusive jurisdiction.

Dividend Rights. Subject to preferences that may apply to any shares of preferred stock outstanding at the time, the holders of our common stock are entitled to receive dividends out of funds legally available if our board of directors, in its discretion, determines to issue dividends and then only at the times and in the amounts that our board of directors may determine.

Liquidation Rights. On our liquidation, dissolution, or winding-up, the holders of common stock will be entitled to share equally, identically and ratably in all assets remaining after the payment of any liabilities, liquidation preferences and accrued or declared but unpaid dividends, if any, with respect to any outstanding preferred stock, unless a different treatment is approved by the affirmative vote of the holders of a majority of the outstanding shares of such affected class, voting separately as a class.

No Preemptive or Similar Rights. The holders of our shares of common stock are not entitled to preemptive rights, and are not subject to conversion, redemption or sinking fund provisions.

Preferred Stock

Under our Charter, our board of directors may, without further action by our stockholders, fix the rights, preferences, privileges and restrictions of up to an aggregate of 15,000,000 shares of preferred stock in one or more series and authorize their issuance. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of our common stock. Any issuance of our preferred stock could adversely affect the voting power of holders of our common stock, and the likelihood that such holders would receive dividend payments and payments on liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control or other corporate action.

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

Charter and Bylaws

Because our stockholders do not have cumulative voting rights, stockholders holding a majority of the voting power of our shares of common stock will be able to elect all our directors. Our Charter and Bylaws require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent or electronic transmission. A special meeting of stockholders may be called by a majority of our board of directors, the chair of our board of directors, our chief executive officer or our lead

independent director. Our Bylaws set forth advance notice procedures for stockholder proposals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors.

The foregoing provisions make it more difficult for another party to obtain control of us by replacing our board of directors. Since our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of deterring hostile takeovers or delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts.

Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits persons deemed "interested stockholders" from engaging in a "business combination" with a publicly-held Delaware corporation for three years following the date these persons become interested stockholders unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. Generally, an "interested stockholder" is a person who, together with affiliates and associates, owns or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation's voting stock. Generally, a "business combination" includes a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the board of directors, such as discouraging takeover attempts that might result in a premium over the market price of our common stock.

Choice of Forum

Our Charter provides that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if and only if the Court of Chancery of the State of Delaware lacks subject matter jurisdiction, any state court located within the State of Delaware or, if and only if all such state courts lack subject matter jurisdiction, the federal district court for the District of Delaware) and any appellate court therefrom shall be the sole and exclusive forum for the following claims or causes of action under Delaware statutory or common law: (A) any derivative claim or cause of action brought on our behalf; (B) any claim or cause of action for breach of a fiduciary duty owed by any of our current or former directors, officers or other employees to us or our stockholders; (C) any claim or cause of action against us or any of our current or former directors, officers or other employees arising out of or pursuant to any provision of the Delaware General Corporation Law, our Charter or Bylaws (as each may be amended from time to time); (D) any claim or cause of action seeking to interpret, apply, enforce or determine the validity of our Charter or Bylaws (as each may be amended from time to time, including any right, obligation or remedy thereunder); (E) any claim or cause of action as to which the Delaware General Corporation Law confers jurisdiction on the Court of Chancery of the State of Delaware; and (F) any claim or cause of action against us or any of our current or former directors, officers or otherwise related to our internal affairs, in all cases to the fullest extent permitted by law and subject to the court having personal jurisdiction over the indispensable parties named as defendants; provided, that, this Delaware forum provision set forth in our Charter shall not apply to claims or causes of action brought to enforce a duty or liability created by the Securities Act or the Exchange Act, or any other claim for which the federal courts have exclusive jurisdictio

Further, unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, the federal district courts of the United States shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act, including all causes of action asserted against any defendant named in such complaint. For the avoidance of doubt, these provisions are intended to benefit and may be

enforced by us, our officers and directors, the underwriters for any offering giving rise to such complaint, and any other professional entity whose profession gives authority to a statement made by that person or entity and who has prepared or certified any part of the documents underlying the offering. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions, and there can be no assurance that such provisions will be enforced by a court in those other jurisdictions. We note that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder.

Limitation of Liability and Indemnification Matters

Our Charter contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors are personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for the following:

- any breach of their duty of loyalty to our company or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- any transaction from which they derived an improper personal benefit.

Any amendment to, or repeal of, these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to that amendment or repeal. If the Delaware General Corporation Law is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of our directors will be further limited to the greatest extent permitted by the Delaware General Corporation Law.

In addition, our Bylaws provide that we will indemnify, to the fullest extent permitted by law, any person who is or was a party or is threatened to be made a party to any action, suit or proceeding by reason of the fact that he or she is or was one of our directors or officers or is or was serving at our request as a director or officer of another corporation, partnership, joint venture, trust or other enterprise. Our Bylaws provide that we may indemnify to the fullest extent permitted by law any person who is or was a party or is threatened to be made a party to any action, suit or proceeding by reason of the fact that he or she is or was one of our employees or agents or is or was serving at our request as an employee or agent of another corporation, partnership, joint venture, trust or other enterprise. Our Bylaws also provide that we must advance expenses incurred by or on behalf of a director or officer in advance of the final disposition of any action or proceeding, subject to very limited exceptions.

Further, we have entered into indemnification agreements with each of our directors and executive officers that may be broader than the specific indemnification provisions contained in the Delaware General Corporation Law. These indemnification agreements require us, among other things, to indemnify our directors and executive officers against liabilities that may arise by reason of their status or service. These indemnification agreements also require us to advance all expenses incurred by the directors and executive officers in investigating or defending any such action, suit or proceeding. We believe that these agreements are necessary to attract and retain qualified individuals to serve as directors and executive officers.

The limitation of liability and indemnification provisions in our Charter and Bylaws and in indemnification agreements that we enter into with our directors and executive officers may discourage stockholders from bringing a lawsuit against our directors and executive officers for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against our directors and executive officers, even though an action, if successful, might benefit us and other stockholders. Further, a stockholder's investment may be harmed to the extent that we pay the costs of settlement and damage awards against directors and executive officers, employees or other agents or is or was serving at our request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, for



which indemnification is sought, and we are not aware of any threatened litigation that may result in claims for indemnification.

We maintain insurance policies under which, subject to the limitations of the policies, coverage is provided to our directors and executive officers against loss arising from claims made by reason of breach of fiduciary duty or other wrongful acts as a director or executive officer, including claims relating to public securities matters, and to us with respect to payments that may be made by us to these directors and executive officers pursuant to our indemnification obligations or otherwise as a matter of law.

Any underwriting agreement will provide for indemnification by the underwriters of us and our officers, directors and employees for certain liabilities arising under the Securities Act or otherwise. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling our company pursuant to the foregoing provisions, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Continental Stock Transfer & Trust Company. The transfer agent and registrar's address is 1 State Street, 30th Floor, New York, New York 10004.

Listing on the Nasdaq Capital Market

Our common stock is listed on the Nasdaq Capital Market under the symbol "INTS."

SELLING STOCKHOLDERS

The shares of common stock being offered by the Selling Stockholders are the shares issuable upon the exercise of the Warrants held by the Selling Stockholders. For additional information regarding the issuance of the foregoing shares of common stock and the Warrants, see "Prospectus Summary – Descriptions of Warrants" located elsewhere in this prospectus. We are registering the shares of common stock in order to permit the Selling Stockholders to offer the shares for resale from time to time. Except for the ownership of the shares of common stock offered hereby, the Warrants, and as otherwise disclosed in the footnotes to the table immediately below, none of the Selling Stockholders has had any material relationship with us within the past three years.

The table below lists the Selling Stockholders and other information regarding the beneficial ownership of the shares of common stock by each of the Selling Stockholders. The second column ("Number of Shares of Common Stock Beneficially Owned Prior to Offering") lists the number of shares of common stock beneficially owned by each Selling Stockholder. The beneficial ownership of our common stock is based on 13,712,877 shares of our common stock outstanding as of June 30, 2024.

Beneficial ownership is determined according to the rules of the SEC, which generally provide that a person has beneficial ownership of a security if he, she or it possesses sole or shared voting or investment power over that security, including derivative securities, such as options and warrants, that are currently exercisable or exercisable within 60 days. In computing the number of shares beneficially owned by a particular person or entity and the percentage ownership of that person or entity in the table below, all shares subject to Warrants held by such person or entity were deemed outstanding if such securities are currently exercisable or become exercisable within 60 days of June 30, 2024. These shares were not deemed outstanding, however, for the purpose of computing the percentage ownership of any other person or entity.

The third column ("Maximum Number of Shares of Common Stock to be Sold Pursuant to this Prospectus") lists the shares of common stock being offered by this prospectus by the Selling Stockholders. The fourth column ("Number of Shares of Common Stock Owned After Offering") presents the number of shares of common stock owned after this offering and assumes the sale of all of the shares offered by the Selling Stockholders pursuant to

this prospectus. The Selling Stockholders may sell all, some or none of their respective shares in this offering. See "Plan of Distribution."

	Number of Shares of Common Stock Beneficially Owned Prior	Maximum Number of Shares of Common Stock to be Sold Pursuant to this	Number of Shares of Common Stock Owned After Offering	
Name of Selling Stockholder	to Offering (1)	Prospectus	Number	Percent
Leonard Batterson	2,476,213 (2)	25,000	2,451,213	18.0 %
Craig J. Duchossois	1,056,753 (3)	52,000	1,010,753	7.7 %
Lawrence F.Levy	748,872 (4)	58,000	696,872	5.4 %
James Mellon	79,686	10,000	69,686	*
Brian Eric Schwartz	52,500	52,500	—	_
Alfonso Antonio Alejo	45,813	45,813	—	_
Brian Wiley	37,500	25,000	12,500	*
Dr. Henry George Jarecki	36,000	36,000	—	_
Gregory Bailey	30,000	5,000	25,000	*
Robert Cohen	25,000	25,000	—	_
Rita A. Cooney	21,250	13,000	8,250	*
Declan Doogan (5)	17,420	2,500	14,920	*
Barbara Ellyn Mohl	15,000	15,000	—	_
Steven F. Innaimo	10,000	10,000	—	_
Joseph Bernadino	14,375	7,250	7,125	*
George F. Klein	6,875	2,250	4,625	*
James M. Ahlers (6)	5,000	5,000	—	_
Harold Lindenthal	3,187	3,187	_	_
Thomas Kelleher	2,000	2,000	—	—
Total Shares		394,500		

Represents beneficial ownership of less than 1% of the outstanding shares of our common stock.

(1)This information is based solely on information provided by the Selling Stockholder between June 25, 2024 and July 1, 2024.

Consists of (i) 2,023,227 shares of common stock held by VCapital Intensity LLC ("VCapital"), (ii) 7,356 shares of common stock issuable upon the exercise of warrants held by VCapital and exercisable within 60 days of June 30, 2024, (iii) 427,986 shares of common stock held by BVC — Intensity LLC ("BVC") and (iv) 17,644 shares of common stock issuable upon the exercise of warrants held by (2)BVC and exercisable within 60 days of June 30, 2024. Mr. Batterson may be deemed to beneficially own such shares.

Consists of (i) 860,602 shares of common stock held by Craig J. Duchossois Revocable Trust UAD 9/11/1989 ("Duchossois Trust"), (ii) 12,000 shares of common stock issuable upon the exercise of (3)warrants held by Duchossois Trust and exercisable within 60 days of June 30, 2024, (iii) 150,151 shares of common stock held by CJD RBD Family Support Trust UAD 4/28/80, and (iv) 34,000 shares of common stock issuable upon the exercise of warrants held by Mr. Duchossois exercisable within 60 days of June 30, 2024. The number of shares reported in this column includes 46,000 of the 52,000 shares reported in the third column; the remaining 6,000 shares are issuable upon the exercise of warrants not exercisable within 60 days of June 30, 2024. Mr. Duchossois may be deemed to beneficially own such shares.

Consists of (i) 387,500 shares of common stock held by LFP River West Investors, LLC — Series 21, (ii) 18,000 shares of common stock issuable upon the exercise of warrants held by LFP River West (4) Investors, LLC — Series 38 exercisable within 60 days after June 30, 2024, (iii) 99,161 shares of common stock held by Levy Family Partners, LLC, (iv) 125,733 shares of common stock held by Levy Family Investors LLC, (v) 84,478 shares of common stock held by CLL LLC, and (vi) 34,000 shares of common stock issuable upon the exercise of warrants held by Mr. Levy exercisable within 60 days of June 30, 2024. The number of shares reported in this column includes 52,000 of the 58,000 shares reported in the third column; the remaining 6,000 shares are issuable upon the exercise of warrants not exercisable within 60 days of June 30, 2024. Mr. Levy may be deemed to beneficially own such shares.

(5) Mr. Doogan served on our board of directors from June 2016 to December 2022.

Mr. Ahlers has served as our Executive Vice President of Corporate Finance through a consulting agreement with Mr. Ahlers' employer, Danforth Advisors LLC since June 2023. Until May 21, 2024, Mr. (6) Ahlers was designated as an officer of the Company pursuant to the Company's bylaws, an "officer" within the meaning of Rule 16a-1(f) under the Exchange Act, and an "executive officer" within the meaning of Rule 3b-7 under the Exchange Act.

PLAN OF DISTRIBUTION

Each Selling Stockholder and any of their respective pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on the Nasdaq Capital Market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A Selling Stockholder may use any one or more of the following methods when selling the securities offered hereby:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the
 transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- · an exchange distribution in accordance with the rules of the applicable exchange;
- · privately negotiated transactions;
- settlement of short sales;
- · in transactions through broker-dealers that agree with the Selling Stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell securities in accordance with Rule 144, if available, or pursuant to any available exemption from registration under the Securities Act rather than under this prospectus. The Selling Stockholders will act independently of us in making decisions with respect to the timing, manner and size of each sale. Such sales may be made on one or more exchanges or in the over-the-counter market or otherwise, at prices and under terms then prevailing or at prices related to the then current market price or in negotiated transactions.

In addition, a Selling Stockholder that is an entity may elect to make an in-kind distribution of securities to its members, partners or stockholders pursuant to the registration statement of which this prospectus is a part by delivering a prospectus with a plan of distribution. Such members, partners or stockholders would thereby receive freely tradeable securities pursuant to the distribution through a registration statement. To the extent a distribute is an affiliate of ours (or to the extent otherwise required by law), we may file a prospectus supplement in order to permit the distributees to use the prospectus to resell the securities acquired in the distribution. The Selling Stockholders also may transfer their respective securities in other circumstances, in which case the transferees, pledgees or other successors-in-interest will be the selling beneficial owners for purposes of this prospectus. Upon being notified by the Selling Stockholders that a donee, pledgee, transferee, other successor-in-interest intends to sell our securities, we will, to the extent required, promptly file a supplement to this prospectus to name specifically such person as a Selling Stockholder.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121; and in the case of a principal transaction a markup or markdown in compliance with FINRA Rule 2121.

Subject to applicable law, in connection with the sale of the securities or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. Subject to applicable law, the Selling Stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

Any broker-dealers or agents that are involved in selling the securities offered hereby may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each Selling Stockholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

The Company is required to pay certain fees and expenses incurred by the Company incident to the registration of the securities. The Company has agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to keep this prospectus effective until the earlier of (i) the date on which the securities may be resold by the Selling Stockholders without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144 without the requirement for the Company to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect, (ii) all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect or (iii) the securities offered by this prospectus have been disposed of by the Selling Stockholders (or the other holders of Registrable Securities (as defined in the Registration Rights Agreement)). The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not, subject to certain exceptions, simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the common stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

Our common stock is listed on the Nasdaq Capital Market under the symbol "INTS." The transfer agent and registrar for the common stock is Continental Stock Transfer & Trust Company.

LEGAL MATTERS

The validity of the securities offered hereby has been passed upon for us by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

EXPERTS

The balance sheets of Intensity Therapeutics, Inc. as of December 31, 2023 and 2022, and the related statements of operations, changes in redeemable convertible preferred stock and stockholders' equity (deficiency), and cash flows for each of the years then ended, have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report which is incorporated by reference, which report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern. Such financial statements have been incorporated by reference in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the reporting requirements of the Exchange Act to file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC, including Intensity, at *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.

We also maintain a website at www.intensitytherapeutics.com, through which you can access our SEC filings. The information set forth on our website is not part of this prospectus.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

We incorporate by reference into this prospectus the documents listed below (excluding any portions of such documents that have been "furnished" but not "filed" for purposes of the Exchange Act):

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on March 14, 2024;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2024 that we filed with the SEC on May 9, 2024;
- our Current Reports on Form 8-K filed with the SEC on February 7, 2024, April 19, 2024, May 10, 2024, May 15, 2024 and May 24, 2024, to the extent information therein is filed and not furnished;
- our Definitive Proxy Statement on Schedule 14A, filed with the SEC on June 4, 2024 (but only with respect to information required by Part III of our Annual Report on Form 10-K for the year ended December 31, 2023, which information updated and superseded information included in Part III of our Annual Report on Form 10-K for the year ended December 31, 2023; and
- the description of our common stock contained in our Registration Statement on Form 8-A filed with the SEC on November 30, 2021, as amended on December 2, 2021.

We also incorporate by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of such registration statement, until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus and will become a part of this prospectus from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

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:

Intensity Therapeutics, Inc. 1 Enterprise Drive, Suite 430 Shelton, CT 06484 (203) 221-7381 Attention: Joseph Talamo, Chief Financial Officer

INTENSITY THERAPEUTICS, INC. Up to 394,500 Shares of Common Stock

PROSPECTUS

, 2024

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the various expenses to be incurred in connection with the registration of the securities being registered hereby, all of which will be borne by us. All amounts shown are estimates except the SEC registration fee.

SEC registration fee	\$ 288.23
Printing and engraving expenses	\$ 1,500.00
Legal fees and expenses	\$ 25,000.00
Accounting fees and expenses	\$ 5,000.00
Miscellaneous	\$ 5,000.00
Total expenses	\$ 36,788.23

Item 15. Indemnification of Directors and Officers.

Subsection (a) of Section 145 of the General Corporation Law of the State of Delaware ("DGCL") empowers a corporation to indemnify any person who was or is a party or who is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person 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 reasonable cause to believe the person's conduct was unlawful.

Subsection (b) of Section 145 empowers a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person acted in any of the capacities set forth above, against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 145 further provides that to the extent a director or officer of a corporation has been successful on the merits or otherwise in the defense of any action, suit or proceeding referred to in subsections (a) and (b) of Section 145, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith; that indemnification provided for by Section 145 shall not be deemed exclusive of any other rights to which the indemnified party may be entitled; and the indemnification provided for by Section 145 shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of such person's heirs, executors and administrators. Section 145 also empowers the corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and

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incurred by such person in any such capacity, or arising out of his status as such, whether or not the corporation would have the power to indemnify such person against such liabilities under Section 145.

Section 102(b)(7) of the DGCL provides that a corporation's certificate of incorporation may contain a provision eliminating or limiting the personal liability of a director or officer to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, provided that such provision shall not eliminate or limit the liability of a director or officer (i) for any breach of the officer's or director'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) for any transaction from which the director or officer derived an improper personal benefit, or (iv) with respect to directors, under Section 174 of the DGCL.

Additionally, the Registrant's Sixth Amended and Restated Certificate of Incorporation eliminates its directors' liability to the fullest extent permitted under the DGCL. The DGCL provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability:

- for any transaction from which the director derives an improper personal benefit;
- for any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- for any unlawful payment of dividends or redemption of shares; or
- for any breach of a director's duty of loyalty to the corporation or its stockholders.

If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of the Registrant's directors will be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

In addition, the Registrant has entered into separate indemnification agreements with its directors and officers. These agreements, among other things, require the Registrant to indemnify its directors and officers for certain expenses, including attorneys' fees, judgments, liabilities, fines, penalties and settlement amounts incurred by a director or officer in any action or proceeding arising out of their services as a director or officer of the Registrant or any other company or enterprise to which the person provides services at the Registrant's request.

The Registrant maintains a directors' and officers' insurance policy pursuant to which its directors and officers are insured against liability for actions taken in their capacities as directors or officers.

Item 16. Exhibits.

The Exhibit Index appearing after the signature page to this Form S-3 is incorporated by reference herein.

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;
 - (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 Exchange Act 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, 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 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 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 or by and the offering described 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 prospectus that was part of the registration statement or prospectus that was 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 prospectus that was part of the registration statement or prospectus that was part of the registration statement or prospectus that was part of the registration statement or prospectus that was part of the registration statement or p
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Exchange Act) 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 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.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, 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 City of Shelton, Connecticut on July 3, 2024.

Intensity Therapeutics, Inc.

By: /s/ Lewis H. Bender

Lewis H. Bender

President, Chief Executive Officer and Chairman

POWER OF ATTORNEY

We, the undersigned officers and directors of Intensity Therapeutics, Inc., hereby severally constitute and appoint Lewis H. Bender and Joseph Talamo 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 him and in 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 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 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 by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Lewis H. Bender	President and Chief Executive Officer, Chairman	
Lewis H. Bender	(Principal Executive Officer)	July 3, 2024
/s/ Joseph Talamo	Chief Financial Officer	
Joseph Talamo	(Principal Financial Officer)	July 3, 2024
/s/ John Wesolowski	Principal Accounting Officer and Controller	
John Wesolowski	(Principal Accounting Officer)	July 3, 2024
/s/ Dr. Emer Leahy	Director	
Dr. Emer Leahy	Director	July 3, 2024
/s/ Mark A. Goldberg	Director	
Mark A. Goldberg	Director	July 3, 2024
/s/ Daniel Donovan	Director	
Daniel Donovan	Director	July 3, 2024
/s/ Thomas I. H. Dubin	Director	
Thomas I. H. Dubin	Director	July 3, 2024



Exhibit Index

Exhibit	Description
5.1	Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., as to the legality of the securities being registered
23.1	Consent of EisnerAmper LLP
23.2	Consent of Mintz Levin (included in Exhibit 5.1)
24.1	Power of Attorney (included on the signature page of this registration statement)
107	Filing Fee Table

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July 3, 2024

Intensity Therapeutics, Inc. 1 Enterprise Drive, Suite 430 Shelton, CT 06484

Ladies and Gentlemen:

We have acted as legal counsel to Intensity Therapeutics, Inc., a Delaware corporation (the "Company"), in connection with the filing by the Company of a Registration Statement on Form S-3 (as amended, the "Registration Statement") with the Securities and Exchange Commission (the "Commission") relating to the registration under the Securities Act of 1933, as amended (the "Securities Act"), of the offering from time to time by the selling stockholders, as described in the Registration Statement, of up to 394,500 shares of the Company's common stock, par value \$0.0001 per share (the "Common Stock"), composed of (i) 273,000 shares issuable upon the exercise of warrants issued by the Company as an incentive for holders to participate in the Company's Series A preferred financing, (iii) 49,000 shares issuable upon the exercise of warrants issued by the Company as compensation for placement agents, and (iv) 30,000 shares issuable upon the exercise of warrants issued by the Company to purchasers in a convertible note financing (collectively, the "Warrants").

In connection with this opinion, we have examined the Company's Sixth Amended and Restated Articles of Incorporation and Second Amended and Restated 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 certified or photostatic copies and the authenticity of the originals of such copies, and the truth and correctness of any representations and warranties contained therein. As to questions of fact material to this opinion, we have relied upon certificates or comparable documents of public officials and of officers and representatives of the Company.

Our opinion is limited to the General Corporation Law of the State of Delaware and we express no opinion with respect to the laws of any other jurisdiction. No opinion is expressed herein with respect to the qualification of the Conversion Shares and Warrant Shares under the securities or blue sky laws of any state or any foreign jurisdiction.

Based upon the foregoing and subject to the qualifications and assumptions stated herein, we are of the opinion that the Warrant Shares, when delivered and paid for in accordance with the terms of the Warrants, will be validly issued, fully paid and non-assessable.

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. 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.

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 which forms part of the Registration Statement, and we hereby consent thereto. In giving this consent, we do not admit that we

BOSTON LOS ANGELES MIAMI NEW YORK SAN DIEGO SAN FRANCISCO TORONTO WASHINGTON

MINTZ, LEVIN, COHN, FERRIS, GLOVSKY AND POPEO, P.C.

July 3, 2024 Page 2



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.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement of Intensity Therapeutics, Inc. on Form S-3 to be filed on or about July 3, 2024 of our report dated March 14, 2024, on our audits of the financial statements as of December 31, 2023 and 2022 and for each of the years then ended, which report was included in the Annual Report on Form 10-K filed March 14, 2024. Our report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern. We also consent to the reference to our firm under the caption "Experts" in this Registration Statement.

/s/ EisnerAmper LLP

EISNERAMPER LLP New York, New York July 3, 2024

Calculation of Filing Fee Table

Form S-3 (Form Type)

Intensity Therapeutics, Inc. (Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered(1)	Proposed Maximum Offering Price Per Unit(2)	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common Stock, par value \$0.0001 per share	457(c)	394,500	\$4.95	\$1,952,775	\$0.00014760	\$288.23
	Total Of	ffering Amount			\$1,952,775		\$288.23
	Total Fee	s Previously Paid					-
	Total Fee Offsets						-
Net Fee Due						\$288.23	

(1) Pursuant to Rule 416(a) promulgated under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement shall also cover any additional shares of common stock, par value \$0.0001 per share ("common stock"), of Intensity Therapeutics, Inc. (the "Company") that may be offered or become issuable by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration which results in an increase in the number of outstanding shares of common stock.

(2) Estimated solely for purposes of calculating the registration fee in accordance with Rule 457(c) under the Securities Act and based on the average of the high and the low price of common stock as reported on The Nasdaq Capital Market as of a date (June 28, 2024) within five business days prior to filing this Registration Statement.