

The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement relating to these securities has become effective by rule of the Securities and Exchange Commission. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities, and we are not soliciting offers to buy these securities, in any state or other jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED MARCH 18, 2024

PRELIMINARY PROSPECTUS SUPPLEMENT
(to Prospectus dated June 1, 2021)

\$500,000,000



Shares of Common Stock

Pre-Funded Warrants to Purchase Shares of Common Stock

We are offering shares of our common stock and pre-funded warrants to purchase shares of our common stock pursuant to this prospectus supplement and the accompanying prospectus. The purchase price of each pre-funded warrant will equal the price per share at which shares of common stock are being sold to the public in this offering, minus \$, which is the exercise price of each pre-funded warrant. This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise of the pre-funded warrants.

Our common stock is listed on The Nasdaq Global Select Market under the symbol “MDGL”. On March 15, 2024, the last reported sale price of our common stock on The Nasdaq Global Select Market was \$270.37 per share. We do not intend to list the pre-funded warrants on The Nasdaq Global Select Market, any other national securities exchange or any other nationally recognized trading system.

Investing in our securities involves a high degree of risk. You should carefully consider the risks described under the heading “[Risk Factors](#)” beginning on page S-12 of this prospectus supplement before buying shares of our securities.

| | Per Share of Common Stock | Per Pre-Funded Warrant | Total |
|---|------------------------------|---------------------------|-------|
| Public offering price | \$ | \$ | \$ |
| Underwriting discounts and commissions(1) | \$ | \$ | \$ |
| Proceeds, before expenses, to us | \$ | \$ | \$ |

(1) See “Underwriting” beginning on page S-25 of this prospectus supplement for information regarding compensation payable to the underwriters.

We have granted the underwriters an option to purchase up to an additional shares of our common stock from us at the public offering price, less the underwriting discounts and commissions payable by us. This option is exercisable, in whole or in part, for a period of 30 days following the date of this prospectus supplement. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be approximately \$, and the total proceeds to us, before expenses, will be approximately \$.

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

The underwriters expect to deliver the securities to investors on or about March , 2024.

Goldman Sachs & Co. LLC Jefferies TD Cowen Evercore ISI Piper Sandler
UBS Investment Bank Citizens JMP

The date of this prospectus supplement is March , 2024

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of a registration statement that we filed with the Securities and Exchange Commission (“SEC”) using a “shelf” registration process and consists of two parts. The first part is this prospectus supplement, including the documents incorporated by reference herein, which describes the specific terms of this offering. The second part, the accompanying prospectus, including the documents incorporated by reference therein, provides more general information. In general, when we refer only to the prospectus, we are referring to both parts of this document combined. Before you invest, you should carefully read this prospectus supplement, the accompanying prospectus, all information incorporated by reference herein and therein, as well as the additional information described under the heading “Where You Can Find More Information.” These documents contain information you should carefully consider when deciding whether to invest in our securities.

This prospectus supplement may add, update or change information contained in the accompanying prospectus. To the extent there is a conflict between the information contained in this prospectus supplement and the accompanying prospectus, you should rely on information contained in this prospectus supplement, provided that if any statement in, or incorporated by reference into, one of these documents is inconsistent with a statement in another document having a later date, the statement in the document having the later date modifies or supersedes the earlier statement. Any statement so modified will be deemed to constitute a part of this prospectus only as so modified, and any statement so superseded will be deemed not to constitute a part of this prospectus.

You should rely only on the information contained in this prospectus supplement, the accompanying prospectus, any document incorporated by reference herein or therein, or any free writing prospectuses we have authorized for use in connection with this offering. Neither we nor the underwriters have authorized anyone to provide you with any different information. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may provide to you. The information contained in this prospectus supplement, the accompanying prospectus, and in the documents incorporated by reference herein or therein is accurate only as of the date such information is presented. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus supplement and the accompanying prospectus do 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 shares of common stock and pre-funded warrants to which it relates, nor do this prospectus supplement and the accompanying prospectus 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. Persons outside of the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities and the distribution of this prospectus supplement and the accompanying prospectus outside the United States.

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 and the accompanying prospectus, and any documents incorporated by reference herein or therein, include 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 under the heading “Risk Factors” beginning on page S-12 of this prospectus supplement and in the

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section titled “Risk Factors” in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on February 28, 2024, which is incorporated by reference into the prospectus. 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 this prospectus supplement and the accompanying prospectus, and the documents incorporated by reference herein and therein, completely and with the understanding that future results may be materially different and worse from what we expect. See the information included under the heading “Cautionary Note Regarding Forward-Looking Statements.”

We note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference into this prospectus supplement or the accompanying 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 agreement, 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.

Unless otherwise indicated or the context otherwise requires, the terms “Company,” “Madrigal,” “Madrigal Pharmaceuticals,” “we,” “us” and “our” refer to Madrigal Pharmaceuticals, Inc., a Delaware corporation, and its predecessors and consolidated subsidiaries, and the term “securities” refers to shares of our common stock and our pre-funded warrants.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents we incorporate by reference herein and therein include forward-looking statements within the meaning of the federal securities laws, which statements are: subject to substantial risks and uncertainties; based on our beliefs and assumptions and on information currently available to us; and subject to factors beyond our control. These forward-looking statements are intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact are forward-looking statements. Forward-looking statements reflect management's current knowledge, assumptions, judgment and expectations regarding forward-looking statements, future performance or events; include all statements that are not historical facts; and can be identified by terms such as "accelerate," "achieve," "allow," "anticipates," "appear," "be," "believes," "can," "continue," "could," "demonstrates," "design," "estimates," "expectation," "expects," "forecasts," "future," "goal," "help," "hopeful," "inform," "informed," "intends," "may," "might," "on track," "planned," "planning," "plans," "positions," "potential," "powers," "predicts," "predictive," "projects," "seeks," "should," "will," "will achieve," "will be," "would" or similar expressions and the negatives of those terms.

In particular, this prospectus supplement, and the documents we incorporate by reference in this prospectus supplement, contain forward-looking statements relating to, among other things:

- The initiation of the commercial launch of Rezdiffra™ (resmetirom) for the treatment of adults with noncirrhotic non-alcoholic steatohepatitis ("NASH") with moderate to advanced liver fibrosis in the United States;
- Anticipated or estimated future results, including the risks and uncertainties associated with our future operating performance and financial position, and our projected resources and sufficiency of capital to fund our operating expenses;
- Our possible or assumed future results of operations and expenses, business strategies and plans (including potential ex-U.S. commercialization or partnering opportunities), capital needs and financing plans, including incurrence of indebtedness and compliance with debt covenants under the Loan and Security Agreement with Hercules Capital, Inc., as agent and lender, market trends, market sizing, competitive position, industry environment and potential growth opportunities, among other things;
- Post-approval requirements and commitments, including verification of a clinical benefit in confirmatory trials;
- Our ability to delay certain research activities and related clinical expenses as necessary;
- Our clinical trials, including the anticipated timing of disclosure, presentations of data from, or outcomes from our trials;
- Research and development activities, and the timing and results associated with the future development of Rezdiffra / resmetirom, including projected market size, sector leadership, and patient treatment estimates for NASH and non-alcoholic fatty liver disease ("NAFLD") patients;
- The timing and completion of projected future clinical milestone events, including enrollment, additional studies, top-line data and open label projections;
- Rezdiffra's potential to be a cost-effective specialty therapy for NASH patients with significant liver fibrosis (consistent with fibrosis stages 2 and 3);
- Projections or objectives for obtaining full approval for resmetirom for NASH patients with significant fibrosis (or non-cirrhotic NASH patients) and NASH patients with compensated cirrhosis, including all statements concerning potential clinical benefit to support approval and/or potential approval;
- Estimates of patients diagnosed with NASH;

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- Our primary and key secondary study endpoints for resmetirom, and the potential for achieving such endpoints and projections, including NASH resolution, safety, fibrosis treatment, cardiovascular effects and lipid treatment with resmetirom;
- The relationship between NASH progression and adverse patient outcomes;
- The estimated clinical burden of uncontrolled NASH;
- Analyses for patients with NASH with significant fibrosis concerning potential progression to cirrhosis, decompensated cirrhosis, liver transplant or death, and cardiovascular risks, comorbidities and outcomes;
- Optimal dosing levels for resmetirom and projections regarding potential NASH or NAFLD and potential patient benefits with resmetirom, including future NASH resolution, safety, fibrosis treatment, cardiovascular effects, lipid treatment and/or biomarker effects with resmetirom;
- Our ability to address the unmet needs of patients suffering from NASH with significant fibrosis;
- The potential efficacy and safety of resmetirom for non-cirrhotic NASH patients and cirrhotic NASH patients;
- The potential for resmetirom to become the best-in-class treatment option for patients with NASH and significant fibrosis;
- Strategies, objectives and commercial opportunities, including potential prospects or results;
- Potential ex-U.S. commercialization or partnering opportunities;
- The ability to develop clinical evidence demonstrating the utility of non-invasive tools and techniques to screen and diagnose NASH and/or NAFLD patients;
- The predictive power of liver fat reduction with resmetirom, as measured by non-invasive tests, on NASH resolution and/or fibrosis reduction or improvement, and potential NASH or NAFLD patient risk profile benefits with resmetirom;
- The predictive power of liver fat, liver volume changes or MAST scores for NASH and/or NAFLD patients;
- The predictive power of NASH resolution and/or fibrosis reduction with resmetirom or improvement using non-invasive tests, including the use of ELF, FibroScan, MRE and/or MRI-PDFF;
- The predictive power of non-invasive tests generally, including for purposes of diagnosing NASH, monitoring patient response to resmetirom, or recruiting and conducting a NASH clinical trial;
- Market demand for and acceptance of our products;
- Research, development and commercialization of new products;
- The potential for resmetirom to be an effective treatment for other disease indications;
- Obtaining and maintaining regulatory approvals, including, but not limited to, potential regulatory delays or rejections;
- Risks associated with meeting the objectives of our clinical studies, including, but not limited to our ability to achieve enrollment objectives concerning patient numbers (including an adequate safety database), outcomes objectives and/or timing objectives for our studies, any delays or failures in enrollment, the occurrence of adverse safety events, and the risks of successfully conducting trials that are substantially larger, and have patients with different disease states, than our past trials;
- The potential impact of cyber attacks and other security incidents on our operations or business;
- Our continued reliance on third-party contract manufacturers for the manufacture of our products and product candidates, including resmetirom;

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- Risks related to the effects of resmetirom’s mechanism of action and our ability to accomplish our business and business development objectives and realize the anticipated benefit of any such transactions; and
- Assumptions underlying any of the foregoing.

We caution you that the foregoing list may not include all of the forward-looking statements made in this prospectus supplement. Although management presently believes that the expectations reflected in such forward-looking statements are reasonable, it can give no assurance that such expectations will prove to be correct and you should be aware that actual results could differ materially from those contained in the forward-looking statements.

Forward-looking statements are subject to a number of risks and uncertainties including, but not limited to: our clinical and commercial development of resmetirom; the challenges with the commercial launch of a new product, particularly for a company that does not have commercial experience; enrollment and trial outlook uncertainties, generally, based on blinded, locked or limited trial data; our potential inability to raise sufficient capital to fund our ongoing operations as currently planned or to obtain financings on terms similar to those we have arranged in the past; our ability to meet post-approval commitments and requirements, including completion of enrollment of—and ability to obtain positive data from—any confirmatory studies required by the FDA; our ability to service our indebtedness and otherwise comply with our debt covenants; outcomes or trends from competitive studies; future topline data timing or results; the risks of achieving potential benefits in studies that includes substantially more patients, and patients with different disease states, than our prior studies; our ability to prevent and/or mitigate cybersecurity attacks, unauthorized exfiltration of data or other security incidents; limitations associated with early stage or non-placebo controlled study data; the timing and outcomes of clinical studies of resmetirom; and the uncertainties inherent in clinical testing; and uncertainties concerning analyses or assessments outside of a controlled clinical trial. Undue reliance should not be placed on forward-looking statements, which speak only as of the date they are made. Madrigal undertakes no obligation to update any forward-looking statements to reflect new information, events or circumstances after the date they are made, or to reflect the occurrence of unanticipated events. Please refer to Madrigal’s submissions filed or furnished with the U.S. Securities and Exchange Commission for more detailed information regarding these risks and uncertainties and other factors that may cause actual results to differ materially from those expressed or implied.

We specifically discuss these risks and uncertainties in greater detail in the section appearing in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on February 28, 2024. You should read these documents and the other documents that we file or have filed with the SEC, with the understanding that our actual future results may be materially different from the results expressed or implied by these forward-looking statements. See “Incorporation of Certain Information by Reference” in this prospectus supplement.

Moreover, we operate in an evolving environment. New risks and uncertainties emerge from time to time and it is not possible for our management to predict all risks and uncertainties, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual future results to be materially different from those expressed or implied by any forward-looking statements.

Except as required by applicable law, we assume no obligation to update any forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future. We qualify all of our forward-looking statements by these cautionary statements.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained elsewhere in this prospectus supplement and the accompanying prospectus and in the documents we incorporate by reference. This summary is not complete and does not contain all of the information that you should consider before deciding to invest in our securities. For a more complete understanding of our Company and this offering, you should read this entire prospectus supplement and the accompanying prospectus carefully, including information under the heading “Risk Factors” in this prospectus supplement and the information incorporated by reference herein and therein, including information under the heading “Risk Factors” contained in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on February 28, 2024 and information in our other filings with the SEC.

Overview

We are a biopharmaceutical company focused on delivering novel therapeutics for nonalcoholic steatohepatitis (“NASH”), also known as metabolic dysfunction-associated steatohepatitis (“MASH”), a liver disease with high unmet medical need. In March 2024, we announced that Rezdiffra™ (resmetirom) has been granted accelerated approval by the U.S. Food and Drug Administration (“FDA”) in conjunction with diet and exercise for the treatment of adults with noncirrhotic NASH with moderate to advanced liver fibrosis (consistent with stages F2 to F3 fibrosis). Continued approval for this indication may be contingent upon verification and description of clinical benefit in ongoing confirmatory trials.

We expect to initiate the commercial launch of Rezdiffra in the second quarter of 2024. In support of our commercialization efforts we have employed a national sales force consisting of approximately 150 to 200 sales representatives. As used herein, “Rezdiffra” refers to resmetirom approved by the FDA for the treatment of adults with NASH with moderate to advanced liver fibrosis, and “remetirom” refers to, where applicable, Rezdiffra as well as resmetirom for the treatment of indications beyond NASH with moderate to advanced liver fibrosis.

Rezdiffra is a once-daily, oral THR-b agonist designed to target key underlying causes of NASH. NASH is a more advanced form of nonalcoholic fatty liver disease (“NAFLD”). NASH is a leading cause of liver-related mortality and an increasing burden on healthcare systems globally. Additionally, patients with NASH, especially those with more advanced metabolic risk factors (hypertension, concomitant type 2 diabetes), are at increased risk for adverse cardiovascular events and increased morbidity and mortality.

Once patients progress to NASH with moderate to advanced liver fibrosis (consistent with stages F2 to F3 fibrosis), the risk of adverse liver outcomes increases dramatically. NASH is rapidly becoming the leading cause of liver transplantation in the U.S.

NASH is also known as MASH following a change in disease nomenclature introduced by hepatology medical societies in 2023.

Recent Developments

FDA Accelerated Approval of Rezdiffra for the Treatment of Patients with Noncirrhotic NASH with Moderate to Advanced Liver Fibrosis

The accelerated approval of Rezdiffra was based on results from the Company’s Phase 3 MAESTRO-NASH trial, which was recently published in the New England Journal of Medicine. MAESTRO-NASH is an ongoing pivotal, multicenter, randomized, double-blind, placebo-controlled trial that enrolled 1,759 patients with biopsy-confirmed NASH. Following 52 weeks of treatment, both 100 mg and 80 mg doses of Rezdiffra demonstrated statistically significant improvement compared to placebo on two primary endpoints: NASH resolution

(including a reduction in the nonalcoholic fatty liver disease [NAFLD] activity score by ≥ 2 points) with no worsening of fibrosis, and an improvement in fibrosis by at least one stage with no worsening of the NAFLD activity score. Fibrosis improvement and NASH resolution were consistent regardless of age, gender, type 2 diabetes status, or fibrosis stage.

The Rezdiffra prescribing information does not include a liver biopsy requirement for diagnosis. The recommended dosage of Rezdiffra is based on actual body weight. For patients weighing < 100 kg (220 lbs.), the recommended dosage is 80 mg orally once daily. For patients weighing ≥ 100 kg (220 lbs.), the recommended dosage is 100 mg orally once daily.

MAESTRO-NASH remains ongoing as an outcomes study designed to generate confirmatory data that, if positive, will help verify clinical benefit and may support full approval. A second ongoing outcomes trial is evaluating progression to liver decompensation events in patients with well-compensated NASH cirrhosis treated with Rezdiffra versus placebo.

Rezdiffra should not be used in patients with decompensated cirrhosis. The most common adverse reactions reported in patients treated with Rezdiffra included diarrhea, nausea, pruritis, abdominal pain, vomiting, constipation, and dizziness. Diarrhea and nausea typically began early in treatment initiation and were mild to moderate in severity. A separate, noninvasive Phase 3 trial, MAESTRO-NAFLD-1, evaluated the safety and tolerability of Rezdiffra and contributed to the safety database supporting regulatory benefit-risk assessment.

Rezdiffra is expected to be available to patients in the U.S. in April and will be distributed through a limited specialty pharmacy network. The Company is committed to helping appropriate patients who may benefit from Rezdiffra access the medication through the Madrigal Patient Support program. This program is designed to help patients navigate insurance and affordability challenges and provide co-pay support for eligible patients. Madrigal has also established a patient assistance program to help patients with no insurance access Rezdiffra.

European Medicines Agency Validation of Madrigal's Marketing Authorization Application for Resmetirom for the Treatment of NASH/MASH with Liver Fibrosis

On March 5, 2024, the Company announced that its Marketing Authorization Application for resmetirom for the treatment of NASH with liver fibrosis has been validated and is now under evaluation with the European Medicines Agency's Committee for Medicinal Products for Human Use.

Phase 3 MAESTRO-NASH Trial Results

MAESTRO-NASH is an ongoing Phase 3 trial that enrolled 1,759 patients with biopsy-confirmed NASH. Patients were randomly assigned in a 1:1:1 ratio to receive once-daily Rezdiffra at a dose of 80 mg or 100 mg or placebo. The two primary endpoints at week 52 were NASH resolution with no worsening of fibrosis and an improvement in fibrosis by at least one stage with no worsening of the NAFLD activity score. The key secondary endpoint was the percent change from baseline in LDL cholesterol at week 24.

Rezdiffra achieved both primary endpoints and the key secondary endpoint of the MAESTRO-NASH trial. Additionally, Rezdiffra improved liver enzymes, fibrosis biomarkers and imaging tests as compared with placebo. The primary results of the trial were published in the New England Journal of Medicine in February 2024.

Patients enrolled in the MAESTRO-NASH trial continue on therapy after the initial 52-week treatment period for up to 54 months to accrue and measure hepatic clinical outcome events including progression to cirrhosis on biopsy and hepatic decompensation events, as well as all-cause mortality. The 54-month outcomes portion of the trial is designed to generate confirmatory data that, if positive, will help verify Rezdiffra's clinical benefit and may support full approval.

General Information

We were incorporated in Delaware in September 2011. Our principal executive offices are located at 200 Barr Harbor Drive, Suite 200, West Conshohocken, Pennsylvania 19428. Our telephone number is (267) 824-2827. Our website address is www.madrigalpharma.com. The contents of our website are not incorporated into, and do not form a part of, this prospectus supplement or the registration statement of which it forms a part.

The Offering

The following summary contains basic information about our securities and the offering and is not intended to be complete. It does not contain all of the information that may be important to you. For a more complete understanding of our securities, you should read the sections entitled "Description of Pre-Funded Warrants" in this prospectus supplement and "Description of Securities to Be Offered" in the accompanying prospectus.

| | |
|---|--|
| Common stock offered by us | shares (or shares if the underwriters exercise in full their option to purchase additional shares). |
| Pre-funded warrants offered by us | We are also offering pre-funded warrants to purchase shares of common stock. The purchase price of each pre-funded warrant will equal the price per share at which the shares of common stock are being sold to the public in this offering, minus \$, which is the exercise price of each pre-funded warrant. Each pre-funded warrant will be exercisable from the date of issuance until fully exercised, subject to an ownership limitation. This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise of such pre-funded warrants. |
| Option to purchase additional shares | We have granted the underwriters an option to purchase up to additional shares of our common stock from us at the public offering price, less the underwriting discounts and commissions payable by us. This option is exercisable, in whole or in part, for a period of 30 days following the date of this prospectus supplement. |
| Common stock to be outstanding after this offering⁽¹⁾ | shares (or shares if the underwriters exercise in full their option to purchase additional shares), which excludes any shares of common stock issuable upon exercise of the pre-funded warrants. |
| Use of Proceeds | <p>We estimate that the net proceeds from this offering to us will be approximately \$ million based on the sale of shares of our common stock and pre-funded warrants offered hereby (or approximately \$ million if the underwriters exercise their option to purchase an additional shares from us in full), after deducting estimated underwriting discounts and commissions and estimated offering expenses.</p> <p>We intend to use the net proceeds from this offering for our commercial activities in connection with the launch of Rezdiffra in the U.S. and general corporate purposes, including, without limitation, research and development expenditures, ongoing clinical trial expenditures, manufacture and supply of drug substance and drug products, potential acquisitions or licensing of new technologies, potential ex-U.S.</p> |

Nasdaq Global Select Market Symbol

commercialization or partnering opportunities, capital expenditures and working capital. See “Use of Proceeds” beginning on page S-16 of this prospectus supplement.

Our common stock is listed on The Nasdaq Global Select Market under the symbol “MDGL.” We do not intend to list the pre-funded warrants on The Nasdaq Global Select Market or any other national securities exchange or nationally recognized trading system. Without an active market, the liquidity of the pre-funded warrants will be limited.

Risk Factors

Your investment in our securities involves substantial risks. You should read carefully the “Risk Factors” included and incorporated by reference in this prospectus supplement, including the risk factors incorporated by reference from our filings with the SEC.

- (1) The number of shares of our common stock to be outstanding after the offering is based on 19,875,427 shares of our common stock outstanding as of December 31, 2023 and excludes the following:
- 1,969,797 shares of our common stock issuable upon conversion of our Series A Convertible Preferred Stock, and 400,000 shares of our common stock issuable upon conversion of our Series B Convertible Preferred Stock, each as outstanding as of December 31, 2023;
 - 2,355,779 shares of our common stock issuable upon the exercise of options outstanding as of December 31, 2023, having a weighted average exercise price of \$79.94 per share (less 1,500 shares of our common stock issued upon the exercise of options subsequent to December 31, 2023 through March 8, 2024, at a weighted average exercise price of \$70.52 per share and less 9,526 shares of our common stock underlying options that were cancelled or expired subsequent to December 31, 2023 through March 8, 2024, at a weighted average exercise price of \$85.35 per share);
 - 133,891 shares of common stock issuable upon the exercise of options granted subsequent to December 31, 2023 under our 2015 Stock Plan and 2023 Inducement Plan, having a weighted average exercise price of \$151.78 per share as of March 8, 2024;
 - 44,563 shares of our common stock issued upon the vesting of restricted stock units and performance stock units subsequent to December 31, 2023 through March 8, 2024;
 - 526,117 shares of our common stock issuable upon the vesting of restricted stock units and performance stock units outstanding as of December 31, 2023 (less 44,563 shares of our common stock issued upon the vesting of restricted stock units and performance stock units subsequent to December 31, 2023 through March 8, 2024, less 3,407 shares of our common stock issuable upon the vesting of restricted stock units that were forfeited subsequent to December 31, 2023 through March 8, 2024, and plus an aggregate of 253,721 shares of our common stock issuable upon the vesting of restricted stock units and performance stock units granted subsequent to December 31, 2023 under our 2015 Stock Plan and 2023 Inducement Plan as of March 8, 2024);
 - an aggregate of 711,054 shares of our common stock reserved for future issuance as of December 31, 2023 under our 2015 Stock Plan (less 79,850 shares of our common stock issuable upon the exercise of options granted subsequent to December 31, 2023 through March 8, 2024 under our 2015 Stock Plan, less 154,232 shares of our common stock issuable upon the vesting of restricted stock units and performance stock units granted subsequent to December 31, 2023 under our 2015 Stock Plan, plus 9,526 shares of our common

stock underlying options that were cancelled or expired subsequent to December 31, 2023 through March 8, 2024 and plus 3,208 shares of our common stock issuable upon the vesting of restricted stock units that were forfeited subsequent to December 31, 2023 through March 8, 2024);

- an aggregate of 193,392 shares of our common stock reserved for future issuance under our 2023 Inducement Plan as of December 31, 2023 (less 54,041 shares of our common stock issuable upon the exercise of options granted subsequent to December 31, 2023 through March 8, 2024 under our 2023 Inducement Plan, less 99,489 shares of our common stock issuable upon the vesting of restricted stock units and performance stock units granted subsequent to December 31, 2023 under our 2015 Stock Plan, plus 199 shares of our common stock issuable upon the vesting of restricted stock units that were forfeited subsequent to December 31, 2023 through March 8, 2024);
- \$174.8 million of our common stock available for future issuance pursuant to the at-the-market sales agreement between us and Cowen and Company, LLC, dated June 1, 2021, as amended (the “Sales Agreement”) under the prospectus supplement dated May 9, 2023 (the “May 2023 Prospectus Supplement”), as of December 31, 2023;
- 19,454 shares of our common stock issuable upon the exercise of warrants issued to Hercules Capital, Inc. (“Hercules”) under warrant agreements between us and Hercules (the “Warrant Agreements”), as of December 31, 2023;
- 2,048,098 shares of our common stock issuable upon the exercise of pre-funded warrants at an exercise price of a \$0.0001 per share, as of December 31, 2023; and
- shares of common stock issuable upon the exercise of the pre-funded warrants being offered by us in this offering.

Except as otherwise noted, all information in this prospectus supplement assumes no exercise by the underwriters of their option to purchase additional shares of our common stock.

RISK FACTORS

Before making an investment decision, you should carefully consider the risks described below and discussed in the section titled “Risk Factors” in our most recent Annual Report on Form 10-K, as well as the risks, uncertainties and additional information set forth in our SEC reports on Forms 10-K, 10-Q and 8-K, including after the date of this prospectus supplement, and in other documents incorporated by reference in this prospectus supplement and the accompanying prospectus. We expect to update these Risk Factors from time to time in the periodic and current reports that we file with the SEC after the date of this prospectus supplement. These updated Risk Factors will be incorporated by reference in this prospectus supplement.

Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment. 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 business, financial condition results of operations and prospects. Certain statements below are forward-looking statements. See the information included under the heading “Cautionary Note Regarding Forward-Looking Statements.”

Risks Related to the Company

In order to execute our business plan and achieve profitability, we need to effectively commercialize Rezdiffra, which received FDA approval in March 2024 for the treatment of adults with NASH with moderate to advanced liver fibrosis. We may not be able to meet expectations with respect to sales of Rezdiffra or attain profitability and positive cash-flow from operations.

Rezdiffra is our only drug that has been approved for sale and it has been approved only for the treatment of adults with noncirrhotic NASH with moderate to advanced liver fibrosis in the United States. We are focusing a significant portion of our activities and resources on Rezdiffra, and we believe our prospects are highly dependent on, and a significant portion of the value of our company relates to, our ability to successfully commercialize Rezdiffra for the treatment of adults with NASH with moderate to advanced liver fibrosis in the United States.

Successful commercialization of Rezdiffra is subject to many risks. We have never, as an organization, launched or commercialized any product, and there is no guarantee that we will be able to successfully commercialize Rezdiffra for its approved indication. There are numerous examples of failures to meet high expectations of market potential, including by pharmaceutical companies with more experience and resources than us. We are in the process of building our commercial organization and hiring our U.S. sales force and will need to refine and further develop our commercial organization in order to successfully commercialize Rezdiffra. We expect that the initial commercial success of Rezdiffra for the treatment of NASH will depend on many factors, including the following:

- the efficacy, cost, approved use, and side-effect profile of Rezdiffra regimens relative to competitive treatment regimens for the treatment of NASH;
- Rezdiffra may compete with the off-label use of currently marketed products and other therapies in development that may in the future obtain approval for NASH;
- the effectiveness of our commercial strategy for the marketing of Rezdiffra, including our pricing strategy and the effectiveness of our efforts to obtain adequate third-party reimbursements;
- developing, maintaining and successfully monitoring commercial manufacturing arrangements for Rezdiffra with third-party manufacturers to ensure they meet our standards and those of regulatory authorities, including the FDA, which extensively regulate and monitor pharmaceutical manufacturing facilities;

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- our ability to negotiate and enter into any additional commercial, supply and distribution contracts to support commercialization efforts, and to hire and manage additional qualified personnel;
- our ability to meet the demand for commercial supplies of Rezdiffra at acceptable costs;
- the acceptance of Rezdiffra by physicians, patients and third-party payors;
- our ability to remain compliant with laws and regulations that apply to us and our commercial activities;
- the actual market-size, ability to identify targeted patients and the demographics of patients eligible for Rezdiffra, which may be different than what we currently expect;
- the occurrence of any side effects, adverse reactions or misuse, or any unfavorable publicity in these areas;
- our ability to obtain, maintain or enforce our patents and other intellectual property rights; and
- the effect of recent or potential health care legislation in the United States.

While we believe that Rezdiffra for the treatment of NASH should have a commercially competitive profile, we cannot accurately predict the amount of time needed to attain a commercially successful profile or the amount of revenue that would be generated from the sale of Rezdiffra. If we do not effectively commercialize Rezdiffra, we will not be able to execute our business plan and may not be able to achieve profitability. If our revenues, market share and/or other indicators of market acceptance of Rezdiffra do not meet the expectations of investors or public market analysts, the market price of our common stock would likely decline.

Rezdiffra has received accelerated approval from the FDA, and therefore faces future post-approval development and regulatory requirements, which present additional challenges for us to successfully navigate.

The FDA granted accelerated approval of Rezdiffra for the treatment of adults with noncirrhotic NASH with moderate to advanced liver fibrosis in the United States in March 2024. Under the accelerated approval pathway, continued approval may be contingent upon verification of a clinical benefit in confirmatory trials. These post-approval requirements and commitments may not be feasible and/or could impose significant burdens and costs on us; could negatively impact our development, manufacturing and supply of our products; and could negatively impact our financial results. Drugs granted accelerated approval must meet the same statutory standards for safety and effectiveness as those granted traditional approval. Failure to meet post-approval commitments and requirements, including completion of enrollment of—and in particular, any failure to obtain positive data from—any confirmatory studies required by the FDA, could result in negative regulatory action from the FDA and/or withdrawal of such accelerated approval. The recently enacted Food and Drug Omnibus Reform Act has expanded FDA's expedited withdrawal procedures for drugs approved through the accelerated approval pathway if a sponsor fails to conduct any required post-approval study with due diligence.

Unless otherwise informed by the FDA, an applicant must submit to the FDA for consideration during the preapproval review period copies of all promotional materials, including promotional labeling as well as advertisements, intended for dissemination or publication within 120 days following marketing approval. After 120 days following marketing approval, unless otherwise informed by the FDA, the applicant must submit promotional materials at least 30 days prior to the intended time of initial dissemination of the labeling or initial publication of the advertisement. If we or the manufacturing facilities for our products fail to comply with applicable regulatory requirements, the FDA may, among other actions: issue warning letters or untitled letters; seek an injunction or impose civil or criminal penalties or monetary fines; suspend or withdraw or alter the conditions of our marketing approval; suspend any ongoing clinical trials; refuse to approve pending applications or supplements to applications submitted by us; suspend or impose restrictions on operations, including costly new manufacturing requirements; and seize or detain products, refuse to permit the import or export of products or require us to initiate a product recall.

Risks Related to This Offering

Investors in this offering will pay a much higher price than the book value of our common stock.

If you purchase securities in this offering, you will incur an immediate and substantial dilution in the adjusted net tangible book value of the common stock that you purchase or that is issuable upon exercise of the pre-funded warrants of \$ _____ per share, representing the difference between each of the public offering price of \$ _____ per share and the public offering price of \$ _____ per pre-funded warrant and our as adjusted net tangible book value per share as of December 31, 2023 after giving effect to this offering and assuming no exercise of the pre-funded warrants issued in this offering, and after deducting underwriting discounts and commissions for shares sold in this offering and estimated offering expenses payable by us. See “Dilution.” To the extent outstanding options or warrants we have issued are ultimately exercised, you will incur additional dilution. Furthermore, if the underwriter exercises its option to purchase additional shares, you will also incur additional dilution.

Our management will have broad discretion over the use of the net proceeds from this offering; 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 by us and could use them for purposes other than those contemplated at the time of this offering. Accordingly, you may be 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 are being used appropriately. It is possible that the proceeds will be invested in a way that does not yield a favorable, or any, return for us.

Sales of additional shares of our common stock, including by us or our directors, officers and significant stockholders, could cause the price of our common stock to decline.

Sales of substantial amounts of our common stock in the public market, or the availability of such shares for sale, by us or others, including the issuance of common stock upon exercise of outstanding options, warrants or upon the conversion of our Series A Convertible Preferred Stock or Series B Convertible Preferred Stock, could adversely affect the price of our common stock. In connection with this offering, we, our directors and officers and have entered into lock-up agreements with the underwriters under which we, our directors and officers have agreed, subject to specific exceptions described in the section titled “Underwriting”, not to sell, directly or indirectly, any shares of common stock without the permission of Goldman Sachs & Co. LLC for a period of 60 days following the date of this prospectus supplement. Upon expiration or earlier release of the lock-up, we, our directors or officers may sell shares into the market, which could adversely affect the market price of shares of our common stock. Sales of a substantial number of such shares upon expiration of the lock-up agreements, the perception that such sales may occur, or early release of these agreements, could cause our market price to fall or make it more difficult for you to sell your common stock at a time and price that you deem appropriate.

There is no public market for the pre-funded warrants being offered in this offering.

There is no established public trading market for the pre-funded warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the pre-funded warrants on any securities exchange or nationally recognized trading system, including the Nasdaq Global Select Market. Without an active market, the liquidity of the pre-funded warrants will be limited.

Holders of pre-funded warrants purchased in this offering will have no rights as common stockholders until such holders exercise their pre-funded warrants and acquire our common stock.

Until holders of pre-funded warrants acquire shares of our common stock upon exercise of the pre-funded warrants, holders of pre-funded warrants will have no rights with respect to the shares of our common stock underlying such pre-funded warrants. Upon exercise of the pre-funded warrants, the holders will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

Significant holders or beneficial holders of shares of our common stock may not be permitted to exercise the pre-funded warrants that they hold.

A holder of the pre-funded warrants will not be entitled to exercise any portion of any pre-funded warrant that, upon giving effect to such exercise, would cause the aggregate number of shares of our common stock beneficially owned by such holder (together with its affiliates) to exceed 9.99% of the number of shares of our common stock immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. However, any holder may increase or decrease such percentage (not in excess of 19.99%) upon at least 61 days' prior notice from the holder to us. As a result, you may not be able to exercise your pre-funded warrants for shares of our common stock at a time when it would be financially beneficial for you to do so. In such a circumstance, you could seek to sell your pre-funded warrants to realize value, but you may be unable to do so in the absence of an established trading market and due to applicable transfer restrictions.

USE OF PROCEEDS

We estimate that the net proceeds from the sale of securities that we are selling in this offering will be approximately \$ million based on the sale of shares of our common stock and pre-funded warrants offered hereby, or approximately \$ million if the underwriters exercise in full their option to purchase an additional shares of common stock from us, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We will receive nominal proceeds, if any, from any exercise of pre-funded warrants.

We intend to use the net proceeds from this offering for our commercial activities in connection with the launch of Rezdiffra in the U.S. and general corporate purposes, including, without limitation, research and development expenditures, ongoing clinical trial expenditures, manufacture and supply of drug substance and drug products, potential acquisitions or licensing of new technologies, potential ex-U.S. commercialization or partnering opportunities, capital expenditures and working capital. We may temporarily invest the net proceeds in short-term, interest-bearing instruments, including obligations of U.S. government agencies, U.S. Treasury debt securities, corporate debt securities and money market funds. We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, management will retain broad discretion over the allocation of net proceeds.

DILUTION

If you purchase our securities in this offering, your interest will be diluted to the extent of the difference between the public offering price per share of common stock or pre-funded warrant and the net tangible book value per share of our common stock after this offering. We calculate net tangible book value per share by subtracting our total liabilities from our total tangible assets and dividing the difference by the number of outstanding shares of our common stock.

Our net tangible book value at December 31, 2023 was approximately \$403.6 million, or \$20.31 per share, based on 19,875,427 shares of our common stock then outstanding. Historical net tangible book value per share is equal to our total tangible assets, less total liabilities, divided by the number of outstanding shares of our common stock. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock or pre-funded warrants in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the sale by us of (i) _____ shares of common stock in this offering at a public offering price of \$ _____ per share of common stock, and (ii) pre-funded warrants to purchase _____ shares of common stock in this offering at the offering price of \$ _____ per pre-funded warrant (which equals the public offering price per share of the common stock less the \$ _____ per share exercise price of each such pre-funded warrant) (and excluding shares of common stock issued and any proceeds received upon exercise of the pre-funded warrants or any resulting accounting associated with the pre-funded warrants), less the underwriting discounts and commissions and estimated offering expenses payable by us, our as-adjusted net tangible book value at December 31, 2023 would have been approximately \$ _____ million, or approximately \$ _____ per share of common stock. This represents an immediate increase in net tangible book value of \$ _____ per share to existing stockholders and an immediate dilution in net tangible book value of \$ _____ per share to investors in this offering.

The following table illustrates this per-share dilution:

| | | |
|--|---------|----|
| Public offering price per share | | \$ |
| Historical net tangible book value per share as of December 31, 2023 | \$20.31 | |
| Increase in net tangible book value per share attributable to new investors purchasing shares in this offering | \$ | |
| As adjusted net tangible book value per share immediately after this offering | | \$ |
| Dilution per share to new investors purchasing shares in this offering | | \$ |

Assuming the pre-funded warrants were immediately and fully exercised, this would result in an as adjusted net tangible book value after giving effect to this offering and warrant exercise of \$ _____ million, or \$ _____ per share of common stock, which represents a dilution per share to new investors of \$ _____, and an increase in net tangible book value per share to existing stockholders of \$ _____.

In addition, the amounts in the table above assume no exercise by the underwriters of their option to purchase additional shares of our common stock. If the underwriters exercise their option in full to purchase additional shares of our common stock in this offering at the public offering price of \$ _____ per share, and assuming the pre-funded warrants were not immediately and fully exercised, the as-adjusted net tangible book value per share after the offering would be \$ _____ per share of common stock, the increase in net tangible book value per share to existing stockholders would be \$ _____ per share and the dilution in net tangible book value per share to investors in this offering would be \$ _____ per share.

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The number of shares of our common stock to be outstanding after the offering is based on 19,875,427 shares of our common stock outstanding as of December 31, 2023 and excludes the following:

- 1,969,797 shares of our common stock issuable upon conversion of our Series A Convertible Preferred Stock, and 400,000 shares of our common stock issuable upon conversion of our Series B Convertible Preferred Stock, each as outstanding as of December 31, 2023;
- 2,355,779 shares of our common stock issuable upon the exercise of options outstanding as of December 31, 2023, having a weighted average exercise price of \$79.94 per share (less 1,500 shares of our common stock issued upon the exercise of options subsequent to December 31, 2023 through March 8, 2024, at a weighted average exercise price of \$70.52 per share and less 9,526 shares of our common stock underlying options that were cancelled or expired subsequent to December 31, 2023 through March 8, 2024, at a weighted average exercise price of \$85.35 per share);
- 133,891 shares of common stock issuable upon the exercise of options granted subsequent to December 31, 2023 under our 2015 Stock Plan and 2023 Inducement Plan, having a weighted average exercise price of \$151.78 per share as of March 8, 2024;
- 44,563 shares of our common stock issued upon the vesting of restricted stock units and performance stock units subsequent to December 31, 2023 through March 8, 2024;
- 526,117 shares of our common stock issuable upon the vesting of restricted stock units and performance stock units outstanding as of December 31, 2023 (less 44,563 shares of our common stock issued upon the vesting of restricted stock units and performance stock units subsequent to December 31, 2023 through March 8, 2024, less 3,407 shares of our common stock issuable upon the vesting of restricted stock units that were forfeited subsequent to December 31, 2023 through March 8, 2024, and plus an aggregate of 253,721 shares of our common stock issuable upon the vesting of restricted stock units and performance stock units granted subsequent to December 31, 2023 under our 2015 Stock Plan and 2023 Inducement Plan as of March 8, 2024);
- an aggregate of 711,054 shares of our common stock reserved for future issuance as of December 31, 2023 under our 2015 Stock Plan (less 79,850 shares of our common stock issuable upon the exercise of options granted subsequent to December 31, 2023 through March 8, 2024 under our 2015 Stock Plan, less 154,232 shares of our common stock issuable upon the vesting of restricted stock units and performance stock units granted subsequent to December 31, 2023 under our 2015 Stock Plan, plus 9,526 shares of our common stock underlying options that were cancelled or expired subsequent to December 31, 2023 through March 8, 2024 and plus 3,208 shares of our common stock issuable upon the vesting of restricted stock units that were forfeited subsequent to December 31, 2023 through March 8, 2024);
- an aggregate of 193,392 shares of our common stock reserved for future issuance under our 2023 Inducement Plan as of December 31, 2023 (less 54,041 shares of our common stock issuable upon the exercise of options granted subsequent to December 31, 2023 through March 8, 2024 under our 2023 Inducement Plan, less 99,489 shares of our common stock issuable upon the vesting of restricted stock units and performance stock units granted subsequent to December 31, 2023 under our 2015 Stock Plan, plus 199 shares of our common stock issuable upon the vesting of restricted stock units that were forfeited subsequent to December 31, 2023 through March 8, 2024);
- \$174.8 million of our common stock available for future issuance pursuant to the Sales Agreement under the May 2023 Prospectus Supplement as of December 31, 2023;
- 19,454 shares of our common stock issuable upon the exercise of warrants issued to Hercules under the Warrant Agreements, as of December 31, 2023;
- 2,048,098 shares of our common stock issuable upon the exercise of pre-funded warrants at an exercise price of a \$0.0001 per share, as of December 31, 2023; and
- shares of common stock issuable upon the exercise of the pre-funded warrants being offered by us in this offering.

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To the extent options or warrants are exercised or our Series A Convertible Preferred Stock or Series B Convertible Preferred Stock is converted into common stock, or we issue additional shares of common stock or other securities convertible into or exercisable for common stock in the future, there may be further dilution to investors participating in this offering. In addition, we may choose to raise additional capital because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

DESCRIPTION OF PRE-FUNDED WARRANTS

The following is a brief summary of certain terms and conditions of the pre-funded warrants being offered by this prospectus supplement. The following description is subject in all respects to the provisions contained in the pre-funded warrants.

Form. The pre-funded warrants will be issued as individual warrant agreements to the investors. The form of pre-funded warrant will be filed as an exhibit to our Current Report on Form 8-K that we expect to file with the SEC.

Exercisability. The pre-funded warrants are exercisable at any time after their original issuance. The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and by payment in full in immediately available funds for the number of shares of common stock purchased upon such exercise. As an alternative to payment in immediately available funds, the holder may, in its sole discretion, elect to exercise the pre-funded warrant through a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the pre-funded warrant. No fractional shares of common stock will be issued in connection with the exercise of a pre-funded warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the fair market value of any such fractional shares.

Exercise Limitations. Under the pre-funded warrants, we may not effect the exercise of any pre-funded warrant, and a holder will not be entitled to exercise any portion of any pre-funded warrant, which, upon giving effect to such exercise, would cause the aggregate number of shares of our common stock beneficially owned by the holder (together with its affiliates and certain attribution parties) to exceed 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. However, any holder may increase or decrease such percentage (not in excess of 19.99%) upon at least 61 days' prior notice from the holder to us.

Exercise Price. The exercise price per whole share of our common stock purchasable upon the exercise of the pre-funded warrants is \$ _____ per share of common stock. The exercise price of the pre-funded warrants is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock and also upon any distributions of assets, including cash, stock or other property to our stockholders.

Transferability. Subject to applicable laws, the pre-funded warrants may be offered for sale, sold, transferred or assigned without our consent.

Exchange Listing. We do not plan on applying to list the pre-funded warrants on The Nasdaq Global Select Market, any other national securities exchange or any other nationally recognized trading system.

Fundamental Transactions. In the event of a fundamental transaction, as described in the pre-funded warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the pre-funded warrants will be entitled to receive upon exercise of the pre-funded warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the pre-funded warrants immediately prior to such fundamental transaction without regard to any limitations on exercised contained in the pre-funded warrants.

No Rights as a Stockholder. Except by virtue of such holder's ownership of shares of our common stock, the holder of a pre-funded warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the pre-funded warrant.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following is a general discussion of the material U.S. federal income tax consequences applicable to non-U.S. holders (as defined herein) with respect to the purchase, ownership and disposition of our common stock issued or acquired pursuant to this offering. All prospective non-U.S. holders of our common stock should consult their tax advisors with respect to the U.S. federal, state, local and non-U.S. tax consequences of the purchase, ownership and disposition of our common stock. In general, a non-U.S. holder means a beneficial owner of our common stock (other than a partnership or an entity or arrangement treated as a partnership for U.S. federal income tax purposes) that is not, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation, or an entity treated as a corporation, created or organized in the United States or under the laws of the United States or of any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust if (1) a U.S. court can exercise primary supervision over the trust's administration and one or more U.S. persons have the authority to control all of the trust's substantial decisions or (2) the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended, or the Code, existing U.S. Treasury Regulations promulgated thereunder, published administrative pronouncements and rulings of the U.S. Internal Revenue Service, or the IRS, and judicial decisions, all as in effect as of the date of this prospectus supplement. These authorities are subject to change and to differing interpretation, possibly with retroactive effect. Any change or differing interpretation could alter the tax consequences to non-U.S. holders described in this prospectus supplement.

We assume in this discussion that a non-U.S. holder holds our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all aspects of U.S. federal income taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances, nor does it address any alternative minimum tax, Medicare contribution tax or investment income, estate or gift tax consequences, or any aspects of U.S. state, local or non-U.S. taxes. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as holders that own, or are deemed to own, more than 5% of our capital stock (except to the extent specifically set forth below), corporations that accumulate earnings to avoid U.S. federal income tax, tax-exempt organizations, banks, financial institutions, insurance companies, brokers, dealers or traders in securities, commodities or currencies, tax-qualified retirement plans, holders who hold or receive our common stock pursuant to the exercise of employee stock options or otherwise as compensation, holders holding our common stock as part of a hedge, straddle or other risk reduction strategy, conversion transaction or other integrated investment, "qualified foreign pension funds" as defined in Section 897(1)(2) of the Code, persons subject to special tax accounting under Section 451(b) of the Code, holders deemed to sell our common stock under the constructive sale provisions of the Code, controlled foreign corporations, passive foreign investment companies and certain former U.S. citizens or long-term residents.

In addition, this discussion does not address the tax treatment of partnerships (or entities or arrangements that are treated as partnerships for U.S. federal income tax purposes) or persons that hold our common stock through partnerships. If a partnership, including any entity or arrangement treated as a partnership for U.S. federal income tax purposes, holds our common stock, the U.S. federal income tax treatment of a partner in such partnership will generally depend upon the status of the partner and the activities of the partnership. Such partners and partnerships should consult their tax advisors regarding the tax consequences of the purchase, ownership and disposition of our common stock.

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There can be no assurance that a court or the IRS will not challenge one or more of the tax consequences described in this prospectus supplement, and we have not obtained, nor do we intend to obtain, a ruling or opinion of counsel with respect to the U.S. federal income tax consequences to a non-U.S. holder of the purchase, ownership or disposition of our common stock.

Distributions on Our Common Stock

Distributions, if any, on our common stock generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment, up to such non-U.S. holder's adjusted tax basis in the common stock. Any remaining excess will be treated as capital gain from the sale or exchange of such common stock, subject to the tax treatment described below in "Gain on Sale, Exchange or Other Disposition of Our Common Stock."

Except as otherwise described below, dividends paid to a non-U.S. holder will generally be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. A non-U.S. holder who claims the benefit of an applicable income tax treaty generally will be required to satisfy certain certification and other requirements. Such non-U.S. holders must generally provide us and/or our paying agent, as applicable, with a properly executed IRS Form W-8BEN or IRS Form W-8BEN-E (or applicable successor form) claiming an exemption from or reduction in withholding under an applicable income tax treaty. Such certificate must be provided before the payment of dividends and must be updated periodically. If tax is withheld in an amount in excess of the amount applicable under an income tax treaty, a refund of the excess amount may generally be obtained by a non-U.S. holder by timely filing an appropriate claim for refund with the IRS. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under an applicable income tax treaty. Dividends will also be subject to the discussion below under the heading "FATCA."

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally exempt from the 30% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements prior to the distribution date (generally including provision of a valid IRS Form W-8ECI (or applicable successor form) certifying that the dividends are effectively connected with the non-U.S. holder's conduct of a trade or business within the United States). However, such U.S. effectively connected income, net of specified deductions and credits, is taxed at the same graduated U.S. federal income tax rates applicable to U.S. persons (as defined in the Code). Any U.S. effectively connected income received by a non-U.S. holder that is a corporation may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty.

Gain on Sale, Exchange or Other Disposition of Our Common Stock

Subject to the discussion below regarding backup withholding and FATCA, in general, a non-U.S. holder will not be subject to any U.S. federal income tax on any gain realized upon such non-U.S. holder's sale, exchange or other disposition of our common stock unless:

- the gain is effectively connected with a U.S. trade or business of the non-U.S. holder and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a fixed base maintained in the United States by such non-U.S. holder, in which case the non-U.S. holder generally will be taxed at the graduated U.S. federal income tax rates applicable to U.S. persons (as defined in the Code) and, if the non-U.S. holder is a foreign corporation, the branch profits tax described above in "Distributions on Our Common Stock" also may apply;

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- the non-U.S. holder is a nonresident alien individual who is present in the United States for 183 days or more in the taxable year of the disposition and certain other requirements are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty) on the net gain derived from the disposition, which may be offset by U.S. source capital losses of the non-U.S. holder, if any; or
- our common stock constitutes a U.S. real property interest because we are, or have been, at any time during the five-year period preceding such disposition (or the non-U.S. holder's holding period, if shorter) a "U.S. real property holding corporation." Generally, a corporation is a U.S. real property holding corporation only if the fair market value of its U.S. real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we do not believe that we are, or have been, a U.S. real property holding corporation, or that we are likely to become one in the future. Even if we are or become a U.S. real property holding corporation, provided that our common stock is regularly traded, as defined by applicable U.S. Treasury Regulations, on an established securities market, our common stock will be treated as a U.S. real property interest only with respect to a non-U.S. holder that holds more than 5% of our outstanding common stock, directly or indirectly, actually or constructively, during the shorter of the 5-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. If we are a U.S. real property holding corporation and either our common stock is not regularly traded on an established securities market or a non-U.S. holder holds, or is treated as holding, more than 5% of our outstanding common stock, directly or indirectly, during the applicable testing period, such non-U.S. holder will generally be taxed on any gain in the same manner as gain that is effectively connected with the conduct of a U.S. trade or business, except that the branch profits tax generally will not apply. If we are a U.S. real property holding corporation and our common stock is not regularly traded on an established securities market, a non-U.S. holder's proceeds received on the disposition of our common stock will also generally be subject to withholding at a rate of 15%. Prospective investors are encouraged to consult their own tax advisors regarding the possible consequences to them if we are, or were to become, a U.S. real property holding corporation. No assurance can be provided that our common stock is or will in the future be regularly traded on an established securities market for purposes of the rules described above.

Backup Withholding and Information Reporting

We must report annually to the IRS and to each non-U.S. holder the gross amount of the dividends on our common stock paid to such non-U.S. holder and the tax withheld, if any, with respect to such dividends. A non-U.S. holder will have to comply with specific certification procedures to establish that the non-U.S. holder is not a U.S. person (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to dividends on our common stock. A non-U.S. holder generally will not be subject to U.S. backup withholding with respect to payments of dividends on our common stock if it certifies its non-U.S. status by providing a valid IRS Form W-8BEN, W-8BEN-E or W-8ECI (or applicable successor form), or otherwise establishes an exemption; provided we do not have actual knowledge or reason to know such non-U.S. holder is a U.S. person (as defined in the Code). Dividends paid to non-U.S. holders subject to the U.S. withholding tax, as described above in "Distributions on Our Common Stock," generally will be exempt from U.S. backup withholding. Information reporting and backup withholding will generally apply to the proceeds of a disposition of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the non-U.S. holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. holders should consult their tax advisors regarding the application of the information reporting and backup withholding rules to them.

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Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder may be allowed as a credit against the non-U.S. holder's U.S. federal income tax liability, if any, and may entitle such non-U.S. holder to a refund, provided the required information is timely furnished to the IRS.

FATCA

The Foreign Account Tax Compliance Act, or FATCA, generally imposes a U.S. federal withholding tax of 30% on dividends and, subject to the proposed Treasury Regulations discussed below, the gross proceeds of a disposition of our common stock paid to a "foreign financial institution" and certain other non-U.S. entities unless various U.S. information reporting and due diligence requirements (generally relating to ownership by U.S. persons of interests in or accounts with those entities) have been satisfied, or an exemption applies. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements. Under certain circumstances, a non-U.S. holder may be eligible for refunds or credits of any such taxes withheld. The U.S. Treasury released proposed Treasury Regulations which, if finalized in their present form, would eliminate the federal withholding tax of 30% applicable to the gross proceeds of a sale or other disposition of our common stock. Taxpayers may generally rely on the proposed regulations until final regulations are issued. Non-U.S. holders should consult their tax advisers regarding the effects of FATCA on their investment in our common stock.

THIS SUMMARY IS NOT INTENDED TO BE TAX ADVICE. EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS TAX ADVISOR REGARDING THE PARTICULAR U.S. FEDERAL, STATE AND LOCAL AND NON-U.S. TAX CONSEQUENCES OF PURCHASING, OWNING AND DISPOSING OF OUR COMMON STOCK.

UNDERWRITING

The Company and the underwriters named below have entered into an underwriting agreement with respect to the securities being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. Goldman Sachs & Co. LLC, Jefferies LLC, Cowen and Company, LLC, Evercore Group L.L.C. and Piper Sandler & Co. are the representatives of the underwriters.

| Underwriters | Number of Shares of Common Stock | Number of Pre-funded Warrants |
|------------------------------|-------------------------------------|----------------------------------|
| Goldman Sachs & Co. LLC | | |
| Jefferies LLC | | |
| Cowen and Company, LLC | | |
| Evercore Group L.L.C. | | |
| Piper Sandler & Co. | | |
| UBS Securities LLC | | |
| Citizens JMP Securities, LLC | | |
| Total | | |

The underwriters are committed to take and pay for all of the securities being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

The underwriters have an option to buy up to an additional _____ shares of common stock from the Company to cover sales by the underwriters of a greater number of shares of common stock than the total number set forth in the table above. They may exercise that option for 30 days. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares of common stock in approximately the same proportion as set forth in the table above.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by the Company. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase _____ additional shares of common stock.

Paid by the Company

| | Per Share of Common Stock | | Per Pre-Funded Warrant | Total | |
|-----------|------------------------------|---------------|------------------------|-------------|---------------|
| | No Exercise | Full Exercise | | No Exercise | Full Exercise |
| Per Share | \$ | \$ | \$ | \$ | \$ |
| Total | \$ | \$ | \$ | \$ | \$ |

Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to \$ _____ per share from the initial public offering price. After the initial offering of the shares, the representatives may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

The Company, its officers and directors have agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of their common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus continuing through the date 60 days after the date of this prospectus, except with the prior written consent of Goldman Sachs & Co. LLC. This agreement does not apply to any existing employee benefit plans. See "Shares Available for Future Sale" for a discussion of certain transfer restrictions.

The restrictions described in the immediately preceding paragraph do not apply to:

- the sale of shares of our common stock to the underwriters pursuant to the terms of the underwriting agreement;

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- the issuance by us of common stock upon the exercise of options outstanding as of the date of this prospectus supplement or issued after the date of this prospectus supplement pursuant to our equity plans that are described herein;
- the issuance by us of common stock upon the conversion or exchange of convertible or exchangeable securities outstanding as of the date of this prospectus supplement;
- the issuance of by us of common stock upon the exercise of warrants outstanding as of the date of this prospectus supplement that are described herein;
- the issuance by us of shares of common stock, stock options, restricted stock awards or securities convertible into, exchangeable for or that represent the right to receive shares of common stock, in each case pursuant to our equity plans that are described herein, or pursuant to Nasdaq permitted inducements;
- (i) the issuance by us of shares of capital stock or securities convertible into, exchangeable for or that represent the right to receive capital stock in connection with any joint venture, commercial or collaborative relationship or the acquisition or license by us of the securities, businesses, property or other assets of another person or entity, or (ii) the filing of any registration statement on Form S-8 relating to the securities granted or to be granted pursuant to (A) our equity plans that are described herein or (B) any assumed employee benefit plan contemplated by clause (i), provided, that the aggregate number of shares of common stock that we may sell or issue or agree to sell or issue pursuant to clauses (i) and (ii) shall not exceed 5% of the total number of our shares of common stock outstanding as of the date of this prospectus supplement;
- the issuance by us of rights, common stock, preferred stock or securities convertible into, exchangeable for or that represent the right to receive preferred stock or common stock in connection with any rights plan adopted by us;
- transfers of shares of common stock or securities convertible into or exchangeable for shares of common stock (i) as a *bona fide* gift or gifts or by will, other testamentary document or intestate succession, (ii) to any trust for the direct or indirect benefit of such party or the immediate family of such party, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth in such agreement, and provided further that any such transfer shall not involve a disposition for value, (iii) pursuant to any order or settlement agreement approved by any court of competent jurisdiction, (iv) to any corporation, partnership, limited liability company or similar entity of which 100% of the beneficial ownership interests are owned by such party or the immediate family of such party, (v) to such party's affiliates, shareholders, members, partners, subsidiaries or to any investment fund or other entity controlled or managed by such party, or (vi) by operation of law, including pursuant to a domestic order or negotiated divorce settlement, provided that (A) in the case of any transfer pursuant to clauses (i), (iii), (iv), (v), and (vi), each transferee agrees in writing to be bound by the restrictions set forth in such agreement, (B) in the case of any transfer pursuant to clauses (iii), (iv), (v), and (vi), no public announcement or filing by any party under the Exchange Act, shall be required or voluntarily made in connection with such transfer, (C) in the case of any transfer pursuant to clauses (i), (iii), (iv), (v), and (vi), any such transfer shall not involve a disposition for value and (D) in the case of any transfer pursuant to clause (i), no filing under the Exchange Act or other public filing, report or announcement shall be voluntarily made, and if any such filing, report or announcement shall be legally required during the restricted period, such filing, report or announcement shall clearly indicate in the footnotes thereto the circumstances of such transfer or distribution and that the transferee has agreed to be bound by the restrictions set forth in such agreement;
- the establishment of a new trading plan pursuant to Rule 10b5-1 under the Exchange Act providing for dispositions or sales of shares of common stock; provided that such plan does not permit dispositions or sales during the restricted period and no public announcement or filing under the Exchange Act regarding the establishment of such plan shall be required or voluntarily made during the restricted period;

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- the exercise of options or other stock-based awards to purchase shares of our common stock or the vesting of restricted stock or other stock-based awards outstanding as of the date of this prospectus supplement or granted under equity incentive plans in effect as of the date of this prospectus supplement or described herein and expiring during the restricted period; provided that the underlying shares of our common stock continue to be subject to the terms of such agreement, and provided further that any filing under Section 16(a) of the Exchange Act made in connection with such transfer shall clearly indicate in the footnotes thereto that the filing relates to the circumstances described herein;
- transfers of shares of common stock pursuant to a bona fide third party tender offer, merger, consolidation or other similar transaction made to holders of our common stock involving a change of control; provided that in the event that the tender offer, merger, consolidation or other such transaction is not completed during the restricted period, such shares of common stock shall remain subject to the foregoing restrictions during such period;
- in the case of lockup agreements signed by officers, the repurchase or forfeiture of shares of common stock in connection with termination of such officer's employment with us; or
- the settlement of options, restricted stock or other stock-based awards expiring during the restricted period on a "net" or "cashless" basis or any other withholding of shares of our common stock by us upon vesting and/or settlement of options, restricted stock or other stock-based awards expiring during the restricted period to satisfy tax obligations; provided that (x) the underlying shares of commons stock received by such lock-up party shall continue to be subject to the restrictions set forth in such agreement, (y) any such settled or withheld shares are surrendered to us in the net or cashless exercise and (z) that any filing under Section 16(a) of the Exchange Act made in connection with such transfer or disposition shall clearly indicate in the footnotes thereto the nature of the transfer or disposition.

In connection with the offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent purchases. A "covered short position" is a short position that is not greater than the amount of additional shares for which the underwriters' option described above may be exercised. The underwriters may cover any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to cover the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option described above. "Naked" short sales are any short sales that create a short position greater than the amount of additional shares for which the option described above may be exercised. The underwriters must cover any such naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of the Company's stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of the common stock. As a result, the price of the common stock may be higher than the

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price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on Nasdaq, in the over-the-counter market or otherwise.

The Company may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. In connection with those derivatives, the third parties may sell securities covered by this prospectus, including in short sale transactions. If so, the third party may use securities pledged by the Company or borrowed from the Company or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from the Company in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter or will be identified in a post-effective amendment.

The Company estimates that the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately \$. The underwriters have agreed to reimburse the Company for certain expenses in connection with the offering in an amount not to exceed \$ million.

The Company has agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act of 1933.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to the issuer and to persons and entities with relationships with the issuer, for which they received or will receive customary fees and expenses. Cowen and Company, LLC is the sales agent under the Sales Agreement. Under the Sales Agreement, we may offer and sell, from time to time, shares of our common stock through Cowen and Company, LLC through an “at the market offering,” as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the issuer (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the issuer. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

European Economic Area

In relation to each EEA Member State (each a “**Relevant Member State**”), no shares of our common stock have been offered or will be offered pursuant to this offering to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Regulation, except that the shares of our common stock may be offered to the public in that Relevant Member State at any time:

- a) to any legal entity which is a qualified investor as defined under Article 2 of the Prospectus Regulation;
- b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the Prospectus Regulation) subject to obtaining the prior consent of the representative for any such offer; or
- c) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

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provided that no such offer of shares of our common stock shall require the Company and/or Selling Shareholders or any Bank to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an ‘offer to the public’ in relation to shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our common stock to be offered so as to enable an investor to decide to purchase any shares, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129.

Each person in a Relevant Member State who receives any communication in respect of, or who acquires any shares of our common stock under, this offering contemplated hereby will be deemed to have represented, warranted and agreed to and with each of the Underwriters and their affiliates and the Company that:

- a) it is a qualified investor within the meaning of the Prospectus Regulation; and
- b) in the case of any shares acquired by it as a financial intermediary, as that term is used in Article 5 of the Prospectus Regulation, (i) the shares acquired by it in the Offering have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in any Relevant Member State other than qualified investors, as that term is defined in the Prospectus Regulation, or have been acquired in other circumstances falling within the points (a) to (d) of Article 1(4) of the Prospectus Regulation and the prior consent of Goldman Sachs & Co. LLC has been given to the offer or resale; or (ii) where the shares have been acquired by it on behalf of persons in any Relevant Member State other than qualified investors, the offer of those shares to it is not treated under the Prospectus Regulation as having been made to such persons.

The Company, the Underwriters and their affiliates, and others will rely upon the truth and accuracy of the foregoing representation, acknowledgement and agreement. Notwithstanding the above, a person who is not a qualified investor and who has notified Goldman Sachs & Co. LLC of such fact in writing may, with the prior consent of Goldman Sachs & Co. LLC, be permitted to acquire shares of common stock in this offering.

United Kingdom

This Prospectus and any other material in relation to shares of common stock described herein is only being distributed to, and is only directed at, and any investment or investment activity to which this Prospectus relates is available only to, and will be engaged in only with persons who are (i) persons having professional experience in matters relating to investments who fall within the definition of investment professionals in Article 19(5) of the FPO; or (ii) high net worth entities falling within Article 49(2)(a) to (d) of the FPO; (iii) outside the UK; or (iv) persons to whom an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) in connection with the issue or sale of any shares of common stock may otherwise lawfully be communicated or caused to be communicated, (all such persons together being referred to as “**Relevant Persons**”). The shares of common stock are only available in the UK to, and any invitation, offer or agreement to purchase or otherwise acquire the shares common stock will be engaged in only with, the Relevant Persons. This Prospectus and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other person in the UK. Any person in the UK that is not a Relevant Person should not act or rely on this Prospectus or any of its contents.

No shares of common stock have been offered or will be offered pursuant to this offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the shares of common stock which has been approved by the Financial Conduct Authority, except that the shares of common stock may be offered to the public in the United Kingdom at any time:

- a) to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;

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- b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the Global Coordinators for any such offer; or
- c) in any other circumstances falling within Section 86 of the FSMA.

provided that no such offer of the shares of common stock shall require the Company and/or any Underwriters or any of their affiliates to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation. For the purposes of this provision, the expression an “offer to the public” in relation to the shares of common stock in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of common stock to be offered so as to enable an investor to decide to purchase or subscribe for any shares of common stock and the expression “UK Prospectus Regulation” means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

Each person in the UK who acquires any shares of common stock in this offering or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with the Company, the Underwriters and their affiliates that it meets the criteria outlined in this section.

Canada

The securities may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions, and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption form, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this offering memorandum (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser’s province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser’s province or territory of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Hong Kong

The shares may not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong) (“Companies (Winding Up and Miscellaneous Provisions) Ordinance”) or which do not constitute an invitation to the public within the meaning of the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) (“Securities and Futures Ordinance”), or (ii) to “professional investors” as defined in the Securities and Futures Ordinance and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance, and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities

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laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” in Hong Kong as defined in the Securities and Futures Ordinance and any rules made thereunder.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined under Section 4A of the Securities and Futures Act, Chapter 289 of Singapore (the “SFA”)) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to conditions set forth in the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor, the securities (as defined in Section 239(1) of the SFA) of that corporation shall not be transferable for 6 months after that corporation has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer in that corporation’s securities pursuant to Section 275(1A) of the SFA, (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore (“Regulation 32”)

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole purpose is to hold investments and each beneficiary of the trust is an accredited investor, the beneficiaries’ rights and interest (howsoever described) in that trust shall not be transferable for 6 months after that trust has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer that is made on terms that such rights or interest are acquired at a consideration of not less than S\$200,000 (or its equivalent in a foreign currency) for each transaction (whether such amount is to be paid for in cash or by exchange of securities or other assets), (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32.

Japan

The securities have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended), or the FIEA. The securities may not be offered or sold, directly or indirectly, in Japan or to or for the benefit of any resident of Japan (including any person resident in Japan or any corporation or other entity organized under the laws of Japan) or to others for reoffering or resale, directly or indirectly, in Japan or to or for the benefit of any resident of Japan, except pursuant to an exemption from the registration requirements of the FIEA and otherwise in compliance with any relevant laws and regulations of Japan.

LEGAL MATTERS

The validity of the securities offered by this prospectus supplement and the accompanying prospectus will be passed upon for us by Hogan Lovells US LLP. Certain legal matters will be passed upon for the underwriters by Ropes & Gray LLP.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report On Internal Control Over Financial Reporting) incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2023 have been so incorporated in reliance on the report (which contains an explanatory paragraph relating to the Company's requirement for additional financing to fund future operations as described in Note 3 to the financial statements) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We have on file with the SEC an effective "shelf" registration statement on Form S-3 relating to the securities that may be offered and sold hereunder. The full registration statement, including exhibits thereto, contains additional relevant information about us and these securities that, as permitted by the rules and regulations of the SEC, we have not included in this prospectus supplement or the accompanying prospectus. You should read the full registration statement for further information about us and these securities.

Any statement made in this prospectus supplement or the accompanying prospectus concerning the contents of any contract, agreement or other document is only a summary of the actual contract, agreement or other document. If we have filed any contract, agreement or other document as an exhibit to the registration statement, then you should read the exhibit for a more complete understanding of the document or matter involved.

We maintain a website at www.madrigalpharma.com. We make our SEC filings available on our website, free of charge, as soon as reasonably practicable after such materials are filed with, or furnished to, the SEC. Information presented or accessed through our website is not incorporated into, or made a part of, this prospectus supplement or the accompanying prospectus.

Our SEC filings are available from the SEC's Internet site at <http://www.sec.gov>, which contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

In addition, our common stock is listed on The Nasdaq Global Select Market and similar information concerning us can be inspected and copied at the offices of The Nasdaq Stock Market, One Liberty Plaza, 165 Broadway, New York, NY 10006.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

This prospectus supplement and the accompanying prospectus are part of a registration statement on [Form S-3](#) filed by us with the SEC on June 1, 2021 (File No. 333-256666). This prospectus supplement and the accompanying prospectus do not contain all of the information set forth in the registration statement, certain parts of which are omitted in accordance with the rules and regulations of the SEC. For further information about us and the securities offered by this prospectus supplement and the accompanying prospectus, we refer you to the registration statement and its exhibits and schedules which may be obtained as described herein.

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The SEC's rules allow us to "incorporate by reference" information into this prospectus supplement and the accompanying prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus. This prospectus supplement and the accompanying prospectus incorporate by reference the documents listed below that we have previously filed with the SEC:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, as filed with the SEC on [February 28, 2024](#);
- our Definitive Proxy Statement on Schedule 14A filed on [May 1, 2023](#);
- our Current Reports on Form 8-K, as filed with the SEC on [January 8, 2024](#), [February 28, 2024](#) (filed under Item 5.02) and [March 14, 2024](#);
- the description of our common stock contained in our Registration Statement on Form 8-A, filed with the SEC on [January 26, 2007](#), as amended by the description of our common stock contained in [Exhibit 4.3](#) to our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, as filed with the SEC on February 23, 2023, and including any amendment or report filed for the purpose of updating such description.

We also incorporate by reference into this prospectus supplement and the accompanying prospectus all documents filed by us with the SEC pursuant to Sections 12(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of any offering of securities made by this prospectus supplement and the accompanying prospectus. Nothing in this prospectus supplement or the accompanying prospectus shall be deemed to incorporate information furnished but not filed with the SEC (including without limitation, information furnished under Item 2.02 or Item 7.01 of Form 8-K, and any exhibits relating to such information).

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

You may request a copy of the filings incorporated herein by reference, including exhibits to such documents that are specifically incorporated by reference, at no cost, by writing or calling us at the following address or telephone number:

Mardi C. Dier
Chief Financial Officer
Madrigal Pharmaceuticals, Inc.

200 Barr Harbor Drive, Suite 200
West Conshohocken, Pennsylvania 19428
(267) 824-2827

Statements contained in this prospectus supplement and the accompanying prospectus as to the contents of any contract or other documents are not necessarily complete, and in each instance investors are referred to the copy of the contract or other document filed as an exhibit to the registration statement, each such statement being qualified in all respects by such reference and the exhibits and schedules thereto.

PROSPECTUS

Madrigal Pharmaceuticals, Inc.



Common Stock
Preferred Stock
Warrants
Debt Securities
Units

From time to time, we may offer and sell, in one or more offerings, common stock, preferred stock, warrants, debt securities or units consisting of any combination of the other securities described in this prospectus. The preferred stock, warrants or debt securities may be convertible into or exercisable or exchangeable for common stock, preferred stock or other securities. We may offer any combination of the securities, in separate series or classes and in amounts, at prices and on terms described in one or more supplements to this prospectus. In addition, this prospectus may be used to offer securities for certain selling stockholders.

This prospectus describes some of the general terms that may apply to the securities we and/or any selling stockholder may offer and sell and the general manner in which they may be offered. Each time we and/or any selling stockholder offer securities pursuant to this prospectus, we will provide one or more supplements to this prospectus or free writing prospectuses that contain specific information about the offering and the terms of any securities being sold. You should carefully read this prospectus, any prospectus supplement and any free writing prospectus, as well as any documents incorporated in any of the foregoing by reference, before you invest in our securities. This prospectus may not be used to sell our securities unless accompanied by a prospectus supplement. The prospectus supplement or any related free writing prospectus may also add, update, supplement, change or clarify information contained in this prospectus.

Our common stock is traded on the NASDAQ Global Select Market under the symbol "MDGL."

We or any selling stockholder may offer and sell our securities to or through one or more agents, underwriters, dealers or other third parties or directly to one or more purchasers on a continuous or delayed basis. If agents, underwriters or dealers are used to sell our securities, we or any selling stockholder will name them and describe their compensation in a prospectus supplement. The price to the public of our securities and the net proceeds we expect to receive from the sale of such securities will also be set forth in a prospectus supplement. We will not receive any proceeds from the sale of securities by selling stockholders.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. YOU SHOULD REVIEW CAREFULLY THE RISKS AND UNCERTAINTIES REFERENCED UNDER THE HEADING "[RISK FACTORS](#)" ON PAGE 4 OF THIS PROSPECTUS AS WELL AS THOSE CONTAINED IN THE APPLICABLE PROSPECTUS SUPPLEMENT AND ANY RELATED FREE WRITING PROSPECTUS, AND IN THE OTHER DOCUMENTS THAT ARE INCORPORATED BY REFERENCE INTO THIS PROSPECTUS OR THE APPLICABLE 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 June 1, 2021.

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We are responsible for the information contained and incorporated by reference in this prospectus, in any accompanying prospectus supplement, and in any related free writing prospectus we prepare or authorize. We have not authorized anyone to give you any other information, and we take no responsibility for any other information that others may give you. If you are in a jurisdiction where offers to sell, or solicitations of offers to purchase, the securities offered by this documentation are unlawful, or if you are a person to whom it is unlawful to direct these types of activities, then the offer presented in this document does not extend to you. The information contained in this document speaks only as of the date of this document, unless the information specifically indicates that another date applies. Our business, financial condition, results of operations and prospectus may have changed since those dates.

ABOUT THIS PROSPECTUS

This prospectus is part of an automatic shelf registration statement that we filed with the Securities and Exchange Commission, or the SEC, as a “well-known seasoned issuer” as defined in Rule 405 under the Securities Act of 1933, as amended, or the Securities Act. Under this shelf registration process, we and/or selling stockholders may offer any security, or any combination of the securities, described in this prospectus from time to time in one or more offerings. This prospectus only provides you with a general description of the securities we and/or selling stockholders may offer. Each time we and/or selling stockholders offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the specific terms of the offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. This prospectus may not be used to sell our securities unless accompanied by a prospectus supplement. Each such prospectus supplement and any free writing prospectus that we may authorize to be provided to you may also add, update, supplement, change or clarify information contained in this prospectus or in documents incorporated by reference into this prospectus. We urge you to carefully read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the headings “Where You Can Find Additional Information” and “Incorporation of Certain Information by Reference” before you invest in our securities.

Neither we nor any selling stockholder have authorized anyone to provide you with information in addition to or different from that contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus. We take no responsibility for, and can provide no assurances as to the reliability of, any information not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we or a selling stockholder may authorize to be provided to you. 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, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security.

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, and you may obtain copies of those documents as described below under the heading “Where You Can Find Additional Information.”

Unless otherwise mentioned or unless the context requires otherwise, throughout this prospectus, any applicable prospectus supplement and any related free writing prospectus, the words “Madrigal,” “we,” “us,” “our,” the “company” or similar references refer to Madrigal Pharmaceuticals, Inc. and its subsidiaries; and the term “securities” refers collectively to our common stock, preferred stock, warrants, debt securities, units consisting of any combination of the securities described in this prospectus, and any combination of the foregoing.

This prospectus and the information incorporated herein by reference contains references to trademarks, service marks and trade names owned by us or other companies. Solely for convenience, trademarks, service marks and trade names referred to in this prospectus and the information incorporated herein, including logos, artwork, and other visual displays, may appear without the ® or ™ symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks, service marks and trade names. We do not intend our use or display of other companies’ trade names, service marks or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus, any applicable prospectus supplement or any related free writing prospectus are the property of their respective owners.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

This prospectus is part of a registration statement that we have filed with the SEC. Certain information in the registration statement has been omitted from this prospectus in accordance with the rules of the SEC. We are subject to the information requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and, in accordance therewith, file annual, quarterly and special reports, proxy statements and other information with the SEC. The SEC maintains a website that contains these documents, which may be accessed through the SEC's Electronic Data Gathering, Analysis and Retrieval system, or EDGAR, via electronic means, including the SEC's home page (www.sec.gov).

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus supplement is continually updated, and those future filings may modify or supersede some of the information included or incorporated in this prospectus. You should review all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus. This prospectus incorporates by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) until the completion of the offering of securities described in this prospectus:

- our [Annual Report on Form 10-K for the fiscal year ended December 31, 2020, as filed with the SEC on February 25, 2021](#), including the information specifically incorporated therein by reference from our [Definitive Proxy Statement on Schedule 14A, as filed with the SEC on April 30, 2021](#);
- our [Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2021, as filed with the SEC on May 6, 2021](#);
- our [Current Report on Form 8-K, as filed with the SEC on May 18, 2021](#); and
- the description of our common stock contained in our Registration Statement on [Form 8-A](#) filed with the SEC on January 26, 2007, including any amendment thereto or report filed for the purpose of updating such descriptions, including but not limited to the description of our common stock contained in [Exhibit 4.1](#) hereto and incorporated into this registration statement.

We do not, however, incorporate by reference in this prospectus or any prospectus supplement any documents or portions thereof that are not deemed "filed" with the SEC, including any information furnished pursuant to Item 2.02 or Item 7.01 of our Current Reports on Form 8-K unless, and except to the extent, specified in such reports.

You may request a copy of these filings, at no cost, by contacting us, either orally or in writing, at:

Alex G. Howarth
Chief Financial Officer
Madrigal Pharmaceuticals, Inc.
Four Tower Bridge
200 Barr Harbor Drive, Suite 200
West Conshohocken, Pennsylvania 19428
(267) 824-2827

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You may also access these documents, free of charge on the SEC's website at www.sec.gov or on our website at www.madrigalpharma.com. The information contained in, or that can be accessed through, our website is not part of this prospectus.

This prospectus is part of a registration statement we filed with the SEC. We have incorporated exhibits into this registration statement. You should read the exhibits carefully for provisions that may be important to you.

Neither we nor any selling stockholder have authorized anyone to provide you with information other than what is incorporated by reference or provided in this prospectus or any prospectus supplement.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the information incorporated by reference herein contain statements that are not historical facts and are considered forward-looking within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. These forward-looking statements are based on our beliefs and assumptions and on information currently available to us, but are subject to factors beyond our control. Forward-looking statements reflect management's current knowledge, assumptions, judgment and expectations regarding future performance or events; include all statements that are not historical facts; and can be identified by terms such as "allow," "anticipates," "be," "believes," "continue," "could," "demonstrates," "design," "estimates," "expects," "forecasts," "future," "hopeful," "goal," "intends," "may," "might," "plans," "potential," "predicts," "predictive," "projects," "seeks," "should," "will," "will achieve," "would" or similar expressions and the negatives of those terms. We believe that it is important to communicate our future expectations to our investors. However, there may be events in the future that we are not able to accurately predict or control and that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements.

Investors are cautioned not to unduly rely on forward-looking statements because they relate to future events or our future financial performance and 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 any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

- anticipated or estimated future results, including the risks and uncertainties associated with our future operating performance and financial position;
- our possible or assumed future results of operations and expenses, business strategies and plans, capital needs and financing plans, market trends, competitive position, industry environment and potential growth opportunities;
- our clinical trials, research and development activities, and the timing and results associated with the future development of our lead product candidate, MGL-3196 (resmetirom);
- our primary and secondary study endpoints for resmetirom, the potential for achieving such endpoints and projections, including those regarding potential future non-alcoholic steatohepatitis ("NASH") resolution, safety, fibrosis treatment, cardiovascular effects and lipid treatment with resmetirom;
- optimal dosing levels for resmetirom and projections regarding potential NASH or nonalcoholic fatty liver disease ("NAFLD") patient benefits with resmetirom;
- market demand for and acceptance of our products;
- research, development and commercialization of new products;
- obtaining and maintaining regulatory approvals, including, but not limited to, potential regulatory delays or rejections;

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- risks associated with meeting the objectives of clinical studies, including, but not limited to our ability to achieve enrollment objectives concerning patient number (including an adequate safety database) and/or timing for our studies, any delays or failures in enrollment, the occurrence of adverse safety events, and the risks of successfully conducting trials that are substantially larger than our past trials;
- risks related to our ability to accomplish our business development objectives and realize the anticipated benefit of any such transactions; and
- assumptions underlying any of the foregoing.

Given these uncertainties, you should not place undue reliance on these forward-looking statements. These forward-looking statements speak only as of the date on which the statements were made and are not guarantees of future performance. Except as may be required by applicable law, we do not undertake or intend to update any forward-looking statements after the date of this prospectus or the respective dates of documents incorporated by reference herein that include forward-looking statements.

RISK FACTORS

You should carefully consider the risks described in the documents incorporated by reference in this prospectus and any prospectus supplement, as well as other information we include or incorporate by reference into this prospectus and any applicable prospectus supplement, before making an investment decision. Our business, financial condition or results of operations could be materially adversely affected by the materialization of any of these risks. The trading price of our securities could decline due to the materialization of any of these risks, and you may lose all or part of your investment. This prospectus and the documents incorporated herein by reference also contain forward-looking statements that involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks described in the documents incorporated herein by reference, including our most recent annual report on Form 10-K which is on file with the SEC and is incorporated herein by reference, and other documents we file with the SEC that are deemed incorporated by reference into this prospectus.

ABOUT THE COMPANY

We are a clinical-stage biopharmaceutical company pursuing novel therapeutics that target a specific thyroid hormone receptor pathway in the liver, which is a key regulatory mechanism common to a spectrum of cardio-metabolic and fatty liver diseases with high unmet medical need. Our lead candidate, resmetirom, is a first-in-class, orally administered, small-molecule, liver-directed, thyroid hormone receptor (THR)- β selective agonist that is currently in two Phase 3 clinical studies, MAESTRO-NASH and MAESTRO-NAFLD-1, designed to demonstrate multiple benefits across a broad spectrum of NASH and NAFLD patients.

We were incorporated in Delaware in September 2011. Our principal executive offices are located at 200 Barr Harbor Drive, Suite 200, West Conshohocken, Pennsylvania 19428 and our telephone number at that address is (267) 824-2827. We maintain a website at www.madrigalpharma.com. The information on, or that can be accessed through, our website does not constitute part of this prospectus, and you should not rely on any such information in making the decision whether to purchase our securities.

DESCRIPTION OF SECURITIES TO BE OFFERED

We may offer shares of our common stock, preferred stock, warrants to purchase common stock or preferred stock, debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt, or units consisting of any combination of the other types of securities offered from time to time

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in one or more offerings under this prospectus at prices and on terms to be determined at the time of any offering. This prospectus provides you with a general description of the securities we and/or any selling stockholder may offer. Each time we and/or any selling stockholder offer a type or series of securities under this prospectus, we will provide a prospectus supplement and/or free writing prospectus that will describe the specific amounts, prices and other important terms of the securities.

Common Stock. We and/or any selling stockholder may issue and/or sell, as applicable, shares of our common stock from time to time. Holders of shares of our common stock are entitled to one vote for each share held of record on all matters to be voted on by stockholders and do not have cumulative voting rights. Subject to the preferences that may be applicable to any then outstanding shares of preferred stock, the holders of our outstanding shares of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of funds legally available for dividend payments. The holders of our common stock have no preferences or rights of conversion, exchange, pre-emption or other subscription rights. There are no redemption or sinking fund provisions applicable to our common stock. In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

Preferred Stock. We may issue shares of our preferred stock from time to time, in one or more series. Our board of directors will determine the rights, preferences and privileges of the shares of each wholly unissued series, and any qualifications, limitations or restrictions thereon, including dividend rights, voting rights, conversion rights, preemptive rights, terms of redemption or repurchase, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of any series. Convertible preferred stock will be convertible into our common stock or exchangeable for other securities. Conversion may be mandatory or at the holder's option and would be at prescribed conversion rates.

If we sell any series of preferred stock under this prospectus, we will fix the rights, preferences and privileges of the preferred stock of such series, as well as any qualifications, limitations or restrictions thereon, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. We will describe the specific terms of a particular series of preferred stock in the prospectus supplement related to that series. We urge you to read the applicable prospectus supplement and any free writing prospectus that we may authorize to be provided to you, as well as the complete certificate of designation, for complete information on any applicable series of preferred stock.

Warrants. We may issue warrants for the purchase of common stock and/or preferred stock in one or more series. We may issue warrants independently or together with common stock and/or preferred stock, and the warrants may be attached to or separate from these securities. We will describe the specific terms of any warrants we may offer in the prospectus supplement related to such warrants. We urge you to read the applicable prospectus supplement and any free writing prospectus that we may authorize to be provided to you, as well as the complete warrant agreements and warrant certificates, for complete information on the terms of the warrants. Forms of the warrant agreements and forms of warrant certificates containing the terms of the warrants being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

We will evidence each series of warrants by warrant certificates that we will issue. Warrants may be issued under an applicable warrant agreement that we enter into with a warrant agent. We will indicate the name and address of the warrant agent, if applicable, in the prospectus supplement relating to the particular series of warrants being offered.

Debt Securities. We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The senior debt securities will rank equally with any other unsecured and

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unsubordinated debt. The subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in this instrument governing the debt, to all of our senior indebtedness. Convertible or exchangeable debt securities will be convertible into or exchangeable into our common stock or preferred stock. In this prospectus, we have summarized certain general features of the debt securities. The applicable prospectus supplement will describe the specific debt securities being offered, the price at which they will be offered and other key terms including, as applicable, maturity dates, interest rates, denominations, redemption, conversion, exchange, covenants and events of default. We urge you to read the applicable prospectus supplement and any free writing prospectus that we may authorize to be provided to you, as well as the complete indenture that contains the terms of the debt securities, for complete information on the series of debt securities being offered. We will file as exhibits to the registration statement of which this prospectus is a part, the form of indenture and any supplemental agreements that describe the terms of the series of debt securities we are offering before the issuance of the related series of debt securities.

We may evidence each series of debt securities we will issue by an indenture that we enter into with a trustee. We will indicate the name and address of the trustee, if applicable, in the prospectus supplement relating to the particular series of debt securities being offered.

Units. We may issue, in one or more series, units consisting of any combination of the securities described in this prospectus. We will describe the terms of the units we may offer in the prospectus supplement related to such units. The applicable prospectus supplement may describe the price or prices at which we will issue the units; 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 for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and whether the units will be issued in fully registered or global form. We urge you to read the applicable prospectus supplement and any free writing prospectus that we may authorize to be provided to you, as well as the complete unit agreement that contains the terms of the units. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of unit agreement and any supplemental agreements that describe the terms of the series of units we are offering before the issuance of the related series of units.

We may evidence each series of units by unit certificates that we will issue. Units may be issued under a unit agreement that we enter into with a unit agent. We will indicate the name and address of the unit agent, if applicable, in the prospectus supplement relating to the particular series of units being offered.

USE OF PROCEEDS

Except as described in any prospectus supplement or in any related free writing prospectus that we may authorize to be provided to you, we intend to use the net proceeds received by us from the sale of the securities described in this prospectus for general corporate purposes. Unless otherwise set forth in a prospectus supplement, we will not receive any proceeds from the sale of securities by any selling stockholder.

SELLING STOCKHOLDERS

Selling stockholders are persons or entities that, directly or indirectly, have acquired or will from time to time acquire, our securities. Such selling stockholders may be parties to registration rights agreements with us, or we otherwise may have agreed or will agree to register their securities for resale. The initial purchasers of our securities, as well as their transferees, pledges, donees or successors, all of whom we refer to as “selling stockholders,” may from time to time offer and sell our securities pursuant to this prospectus and any applicable prospectus supplement.

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The applicable prospectus supplement will set forth the name of each of the selling stockholders and the number of securities beneficially owned by such selling stockholder that are covered by such prospectus supplement. The applicable prospectus supplement will also disclose whether any of the selling stockholders has held any position or office with, has been employed by or otherwise has had a material relationship with us during the three years prior to the date of the applicable prospectus supplement.

PLAN OF DISTRIBUTION

We and/or any selling stockholder may sell our securities from time to time in one or more transactions. We and/or any selling stockholder may sell our securities to or through agents, underwriters, dealers, remarketing firms or other third parties or directly to one or more purchasers or through a combination of any of these methods of sale. In some cases, we and/or any selling stockholder or dealer acting with us and/or any selling stockholder or on behalf of us and/or any selling stockholder may also purchase our securities and reoffer them to the public. We and/or any selling stockholder may also offer and sell, or agree to deliver, our securities pursuant to, or in connection with, any option agreement or other contractual arrangement.

Agents whom we designate may solicit offers to purchase our securities.

We and/or any selling stockholder will name any agent involved in offering or selling our securities, and disclose any commissions that we will pay to the agent, in the applicable prospectus supplement.

Unless we and/or any selling stockholder indicate otherwise in the applicable prospectus supplement, agents will act on a best efforts basis for the period of their appointment. Agents may be deemed to be underwriters under the Securities Act, of any of our securities that they offer or sell.

We and/or any selling stockholder may use an underwriter or underwriters in the offer or sale of our securities.

If we and/or any selling stockholder use an underwriter or underwriters, we will execute an underwriting agreement with the underwriter or underwriters at the time that we reach an agreement for the sale of our securities. We and/or any selling stockholder will include the names of the specific managing underwriter or underwriters, as well as the names of any other underwriters, and the terms of the transactions, including the compensation the underwriters and dealers will receive, in the applicable prospectus supplement. The underwriters will use the applicable prospectus supplement, together with the prospectus, to sell our securities. The underwriters may offer and sell our securities at a fixed price or prices which may be changed, at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices, any of which may represent a discount from the prevailing market price.

We may also, from time to time, authorize a dealer or agents to sell our securities. If we and/or any selling stockholder use a dealer, we will sell our securities to the dealer, as principal. The dealer will then sell our securities to the public at varying prices that the dealer will determine at the time it sells our securities. We and/or any selling stockholder will include the name of the dealer and the terms of the transactions with the dealer in the applicable prospectus supplement.

We and/or any selling stockholder may solicit directly offers to purchase our securities, and we may directly sell our securities to institutional or other investors. We and/or any selling stockholder will describe the terms of direct sales in the applicable prospectus supplement.

We and/or any selling stockholder may engage in at the market offerings into an existing trading market in accordance with Rule 415(a)(4) of the Securities Act.

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We and/or any selling stockholder will indemnify agents, underwriters and dealers against certain liabilities, including liabilities under the Securities Act. The terms and conditions of any indemnification will be described in the applicable prospectus supplement. Agents, underwriters and dealers, or their affiliates, may engage in transactions with, or perform services for, us or our affiliates in the ordinary course of business.

We and/or any selling stockholder may authorize agents and underwriters to solicit offers by certain institutions to purchase our securities at the public offering price under delayed delivery contracts. If we and/or any selling stockholder use delayed delivery contracts, we will disclose that we are using them in the prospectus supplement and will tell you when we will demand payment and when delivery of our securities will be made under the delayed delivery contracts. These delayed delivery contracts will be subject only to the conditions that we describe in the prospectus supplement. We and/or any selling stockholder will describe in the applicable prospectus supplement the commission that underwriters and agents soliciting purchases of our securities under delayed delivery contracts will be entitled to receive.

Unless otherwise specified in connection with a particular underwritten offering of our securities, the underwriters will not be obligated to purchase offered securities unless specified conditions are satisfied, and if the underwriters do purchase any offered securities, they will purchase all offered securities.

In connection with underwritten offerings of the offered securities and in accordance with applicable law and industry practice, the underwriters in certain circumstances are permitted to engage in certain transactions that stabilize, maintain or otherwise affect the price of our securities, including the entry of stabilizing bids or syndicate covering transactions. If the underwriters create a short position in our securities in connection with the offering (*i.e.*, if they sell more securities than are set forth on the cover page of the applicable prospectus supplement), the underwriters may reduce that short position by purchasing our securities in the open market or as otherwise provided in the applicable prospectus supplement.

The underwriters may also impose a penalty bid, 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. In general, purchases of a security for the purpose of stabilization or to reduce a short position could cause the price of the security to be higher than it might be in the absence of such purchases. The imposition of a penalty bid might also affect the price of our securities to the extent that it were to discourage resales of our securities. The underwriters are not required to engage in these activities and may end any of these activities at any time.

Such purchasers in the foregoing scenarios will be subject to the applicable provisions of the Securities Act and the Exchange Act and the rules and regulations thereunder, including Rule 10b-5 and Regulation M. Regulation M may restrict the ability of any person engaged in the distribution of the securities to engage in market-making activities with respect to those securities. In addition, the anti-manipulation rules under the Exchange Act may apply to sales of our securities in the market. This may affect the marketability of our securities and the ability of any person to engage in market-making activities with respect to our securities.

We and/or any selling stockholder may effect sales of securities in connection with forward sale, option or other types of agreements with third parties. Any distribution of securities pursuant to any forward sale agreement may be effected from time to time in one or more transactions that may take place through a stock exchange, including block trades or ordinary broker's transactions, or through broker-dealers acting either as principal or agent, or through privately-negotiated transactions, or through an underwritten public offering, or through a combination of any such methods of sale, at market prices prevailing at the time of sale, prices relating to such prevailing market prices or at negotiated or fixed prices.

The specific terms of the lock-up provisions, if any, in respect of any given offering will be described in the applicable prospectus supplement.

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In compliance with the guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8.0% of the aggregate amount of the securities offered by this prospectus.

LEGAL MATTERS

The validity of the securities being offered by this prospectus will be passed upon by Hogan Lovells US LLP, Washington, DC.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2020 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

\$500,000,000



Shares of Common Stock

Pre-Funded Warrants to Purchase Shares of Common Stock

PROSPECTUS SUPPLEMENT

Goldman Sachs & Co. LLC

Jefferies

TD Cowen

Evercore ISI

Piper Sandler

UBS Investment Bank

Citizens JMP

We have not authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus supplement and accompanying prospectus or any free writing prospectus that we or the underwriter provide you in connection with the offering. We take no responsibility for, and cannot provide any assurance as to the reliability of, any other information that others may give you. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information contained in or incorporated by reference in this prospectus supplement and accompanying prospectus is accurate as of any date other than the date on the front of this prospectus supplement.

No action is being taken in any jurisdiction outside the United States to permit a public offering of shares of our common stock or possession or distribution of this prospectus supplement in that jurisdiction. Persons who come into possession of this prospectus supplement in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to this offering and the distribution of this prospectus supplement applicable to that jurisdiction.
