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

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2023

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission file number: 001-33277

MADRIGAL PHARMACEUTICALS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**04-3508648**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
Four Tower Bridge 200 Barr Harbor Drive, Suite 200 West Conshohocken, Pennsylvania	
(Address of principal executive offices)	**19428 (Zip Code)**

Registrant's telephone number, including area code: (267) 824-2827

Former name, former address and former fiscal year, if changed since last report:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.0001 Par Value Per Share	**MDGL**	**The NASDAQ Stock Market LLC**

Securities registered pursuant to Section 12(g) of the Exchange Act: None.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☒ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). ☒ Yes ☐ No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of August 3, 2023, the registrant had 18,471,233 shares of common stock outstanding.

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PART I—FINANCIAL INFORMATION

Item 1. Financial Statements.

MADRIGAL PHARMACEUTICALS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited; in thousands, except share and per share amounts)

	June 30, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ 77,196	$ 331,549
Marketable securities	221,222	27,225
Prepaid expenses and other current assets	3,177	2,595
Total current assets	301,595	361,369
Property and equipment, net	455	601
Right-of-use asset	411	602
Total assets	$ 302,461	$ 362,572
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 17,534	$ 23,831
Accrued expenses	81,761	91,461
Lease liability	411	602
Total current liabilities	99,706	115,894
Long term liabilities:		
Loan payable, net of discount	99,249	49,289
Total long term liabilities	99,249	49,289
Total liabilities	198,955	165,183
Stockholders' equity:		
Preferred stock, par value $0.0001 per share authorized: 5,000,000 shares at June 30, 2023 and December 31, 2022; 2,369,797 and 2,369,797 shares issued and outstanding at June 30, 2023 and December 31, 2022, respectively	—	—
Common stock, par value $0.0001 per share authorized: 200,000,000 at June 30, 2023 and December 31, 2022; 18,459,033 and 18,102,523 shares issued and outstanding at June 30, 2023 and December 31, 2022, respectively	2	2
Additional paid-in-capital	1,228,949	1,160,079
Accumulated other comprehensive loss	(89)	(32)
Accumulated deficit	(1,125,356)	(962,660)
Total stockholders' equity	103,506	197,389
Total liabilities and stockholders' equity	$ 302,461	$ 362,572

See accompanying notes to condensed consolidated financial statements.

MADRIGAL PHARMACEUTICALS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited; in thousands, except share and per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Revenues:				
Total revenues	$ —	$ —	$ —	$ —
Operating expenses:				
Research and development	68,605	58,499	130,759	106,428
General and administrative	17,845	11,774	34,027	21,432
Total operating expenses	86,450	70,273	164,786	127,860
Loss from operations	(86,450)	(70,273)	(164,786)	(127,860)
Interest income	3,551	323	7,327	392
Interest expense	(2,901)	(780)	(5,237)	(780)
Net loss	$ (85,800)	$ (70,730)	$ (162,696)	$ (128,248)
Net loss per common share:				
Basic and diluted net loss per common share	$ (4.69)	$ (4.14)	$ (8.91)	$ (7.50)
Basic and diluted weighted average number of common shares outstanding	18,310,952	17,103,395	18,249,778	17,103,395

See accompanying notes to condensed consolidated financial statements.

MADRIGAL PHARMACEUTICALS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(Unaudited; in thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Net Loss	$ (85,800)	$ (70,730)	$ (162,696)	$ (128,248)
Other comprehensive income (loss):				
Unrealized loss on available-for-sale securities	(3)	(45)	(57)	(367)
Comprehensive loss	$ (85,803)	$ (70,775)	$ (162,753)	$ (128,615)

See accompanying notes to condensed consolidated financial statements.

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MADRIGAL PHARMACEUTICALS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited; in thousands, except share and per share amounts)

	Preferred stock		Common stock		Additional paid-in Capital	Accumulated other comprehensive income (loss)	Accumulated deficit	Total stockholders' equity
	Shares	Amount	Shares	Amount				
Balance at December 31, 2022	2,369,797	$ —	18,102,523	$ 2	$1,160,079	$ (32)	$ (962,660)	$ 197,389
Sale of common shares to related parties and exercise of common stock options, net of transaction costs	—	—	180,551	—	17,903	—	—	17,903
Compensation expense related to stock options for services	—	—	—	—	11,250	—	—	11,250
Unrealized loss on marketable securities	—	—	—	—	—	(54)	—	(54)
Hercules warrant	—	—	—	—	544	—	—	544
Net loss	—	—	—	—	—	—	(76,896)	(76,896)
Balance at March 31, 2023	2,369,797	$ —	18,283,074	$ 2	$1,189,776	$ (86)	$(1,039,556)	$ 150,136
Issuance of common shares in equity offering, excluding to related parties, net of transaction costs	—	—	85,901	—	21,754	—	—	21,754
Sale of common shares to related parties and exercise of common stock options, net of transaction costs	—	—	90,058	—	6,251	—	—	6,251
Compensation expense related to stock options for services	—	—	—	—	10,973	—	—	10,973
Unrealized loss on marketable securities	—	—	—	—	—	(3)	—	(3)
Hercules warrant	—	—	—	—	195	—	—	195
Net loss	—	—	—	—	—	—	(85,800)	(85,800)
Balance at June 30, 2023	2,369,797	$ —	18,459,033	$ 2	$1,228,949	$ (89)	$(1,125,356)	$ 103,506
Balance at December 31, 2021	1,969,797	$ —	17,103,395	$ 2	$ 863,495	$ (80)	$ (667,310)	$ 196,107
Compensation expense related to stock options for services	—	—	—	—	7,477	—	—	7,477
Unrealized loss on marketable securities	—	—	—	—	—	(322)	—	(322)
Net loss	—	—	—	—	—	—	(57,518)	(57,518)
Balance at March 31, 2022	1,969,797	$ —	17,103,395	$ 2	$ 870,972	$ (402)	$ (724,828)	$ 145,744
Compensation expense related to stock options for services	—	—	—	—	7,944	—	—	7,944
Unrealized loss on marketable securities	—	—	—	—	—	(45)	—	(45)
Hercules warrant	—	—	—	—	622	—	—	622
Net loss	—	—	—	—	—	—	(70,730)	(70,730)
Balance at June 30, 2022	1,969,797	$ —	17,103,395	$ 2	$ 879,538	$ (447)	$ (795,558)	$ 83,535

See accompanying notes to condensed consolidated financial statements.

MADRIGAL PHARMACEUTICALS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited; in thousands)

	Six Months Ended June 30,	
	2023	2022
Cash flows from operating activities:		
Net loss	$ (162,696)	$ (128,248)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation expense	22,223	15,421
Depreciation and amortization expense	250	217
Amortization of debt issuance costs and discount	987	178
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(582)	(1,442)
Accounts payable	(6,297)	(10,086)
Accrued expense	(9,700)	16,788
Accrued interest, net of interest received on maturity of investments	(3,562)	(101)
Net cash used in operating activities	(159,377)	(107,273)
Cash flows from investing activities:		
Purchases of marketable securities	(290,696)	(116,496)
Sales and maturities of marketable securities	100,204	191,813
Purchases of property and equipment, net of disposals	(104)	(155)
Net cash provided by (used in) investing activities	(190,596)	75,162
Cash flows from financing activities:		
Proceeds from issuances of stock, excluding related parties, net of transaction costs	21,754	—
Proceeds from the sale of related party stock and exercise of common stock options, net of transaction costs	24,154	—
Proceeds from issuance of loan payable	50,000	50,000
Payment of debt issuance costs	(288)	(886)
Net cash provided by financing activities	95,620	49,114
Net increase (decrease) in cash and cash equivalents	(254,353)	17,003
Cash and cash equivalents at beginning of period	331,549	36,269
Cash and cash equivalents at end of period	$ 77,196	$ 53,272
Supplemental disclosure of cash flow information:		
Obtaining a right-of-use asset in exchange for a lease liability	$ —	$ 583

See accompanying notes to condensed consolidated financial statements.

MADRIGAL PHARMACEUTICALS, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Organization, Business, and Basis of Presentation

Organization and Business

Madrigal Pharmaceuticals, Inc. (the "Company" or "Madrigal") is a clinical-stage pharmaceutical company developing novel, high-quality, small-molecule drugs addressing major unmet needs in cardiovascular, metabolic, and liver diseases. The Company's lead compound, resmetirom, is being advanced for non-alcoholic steatohepatitis ("NASH"), a liver disease that commonly affects people with metabolic diseases such as obesity and diabetes, and non-alcoholic fatty liver disease ("NAFLD"). The Company initiated two Phase 3 studies of resmetirom in NASH in 2019 that are ongoing. The Company announced certain topline results from the MAESTRO-NAFLD-1 safety study of resmetirom in January 2022 and the MAESTRO-NASH study in December 2022. In August 2022, Madrigal initiated a third study, MAESTRO-NASH-OUTCOMES.

Basis of Presentation

Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States ("GAAP") have been condensed or omitted. Accordingly, the unaudited condensed consolidated financial statements do not include all information and footnotes required by GAAP for complete annual financial statements. However, we believe that the disclosures included in these financial statements are adequate to make the information presented not misleading. The unaudited condensed consolidated financial statements, in the opinion of management, reflect all adjustments, which include normal recurring adjustments, necessary for a fair statement of such interim results. The interim results are not necessarily indicative of the results that we will have for the full year ending December 31, 2023 or any subsequent period. These unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and the notes to those statements for the year ended December 31, 2022.

2. Summary of Significant Accounting Policies

Principle of Consolidation

The consolidated financial statements include the financial statements of the Company and its wholly owned subsidiaries. All significant intercompany balances have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect certain reported amounts of assets and liabilities, and the reported amounts of revenues and expenses during the reporting periods. The Company bases its estimates on historical experience and various other assumptions that management believes to be reasonable under the circumstances. Changes in estimates are recorded in the period in which they become known. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments with original maturities of three months or less at the date of purchase to be cash equivalents. The Company maintains its cash in bank accounts, the balance of which, at times, exceeds Federal Deposit Insurance Corporation insured limits.

The primary objective of the Company's investment activities is to preserve its capital for the purpose of funding operations and the Company does not enter into investments for trading or speculative purposes. The Company's cash is deposited in highly rated financial institutions in the United States. The Company invests in money market funds and high-grade, commercial paper and corporate bonds, which management believes are subject to minimal credit and market risk.

Marketable Securities

Marketable securities consist of investments in high-grade corporate obligations and government and government agency obligations that are classified as available-for-sale. Since these securities are available to fund current operations, they are classified as current assets on the consolidated balance sheets.

The Company adjusts the cost of available-for-sale debt securities for amortization of premiums and accretion of discounts to maturity. The Company includes such amortization and accretion as a component of interest income, net. Realized gains and losses and declines in value, if any, that the Company judges to be the result of impairment or as a result of recognizing an allowance for credit losses on available-for-sale securities are reported as a component of interest income. To determine whether an impairment exists, the Company considers whether it intends to sell the debt security and, if the Company does not intend to sell the debt security, it considers available evidence to assess whether it is more likely than not that it will be required to sell the security before the recovery of its amortized cost basis. During the six months ended June 30, 2023 and 2022, the Company determined it did not have any securities that were other-than-temporarily impaired.

Marketable securities are stated at fair value, including accrued interest, with their unrealized gains and losses included as a component of accumulated other comprehensive income or loss, which is a separate component of stockholders' equity. The fair value of these securities is based on quoted prices and observable inputs on a recurring basis. Realized gains and losses are determined on the specific identification method. During the six months ended June 30, 2023 and 2022, the Company did not have any realized gains or losses on marketable securities.

Fair Value of Financial Instruments

The carrying amounts of the Company's financial instruments, which include cash equivalents and marketable securities, approximate their fair values. The fair value of the Company's financial instruments reflects the amounts that would be received upon sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy has the following three levels:

Level 1—quoted prices in active markets for identical assets and liabilities.

Level 2—observable inputs other than Level 1 inputs. Examples of Level 2 inputs include quoted prices in active markets for similar assets or liabilities and quoted prices for identical assets or liabilities in markets that are not active.

Level 3—unobservable inputs that reflect the Company's own assumptions about the assumptions market participants would use in pricing the asset or liability.

Financial assets and liabilities are classified in their entirety within the fair value hierarchy based on the lowest level of input that is significant to the fair value measurement. The Company measures the fair value of its marketable securities by taking into consideration valuations obtained from third- party pricing sources. The pricing services utilize industry standard valuation models, including both income and market based approaches, for which all significant inputs are observable, either directly or indirectly, to estimate fair value. These inputs include reported trades of and broker-dealer quotes on the same or similar securities, issuer credit spreads, benchmark securities and other observable inputs.

As of June 30, 2023, the Company's financial assets valued based on Level 1 inputs consisted of cash and cash equivalents in a money market fund, its financial assets valued based on Level 2 inputs consisted of high-grade corporate and government agency bonds and commercial paper, and it had no financial assets valued based on Level 3 inputs. During the six months ended June 30, 2023 and 2022, the Company did not have any transfers of financial assets between Levels 1 and 2. As of June 30, 2023 and December 31, 2022, the Company did not have any financial liabilities that were recorded at fair value on a recurring basis on the balance sheet.

Research and Development Costs

Research and development costs are expensed as incurred. Research and development costs are comprised of costs incurred in performing research and development activities, including internal costs (including stock-based compensation), costs for consultants, milestone payments under licensing agreements, and other costs associated with the Company's preclinical and clinical programs. In particular, the Company has conducted safety studies in animals, optimized and implemented the manufacturing of our drug, and conducted clinical trials, all of which are considered research and development expenditures. Management uses significant judgment in estimating the amount of research and development costs recognized in each reporting period. Management analyzes and estimates the progress of its clinical trials, completion of milestone events per underlying agreements, invoices received and contracted costs when estimating the research and development costs to accrue in each reporting period. Actual results could differ from the Company's estimates.

Patents

Costs to secure and defend patents are expensed as incurred and are classified as general and administrative expense in the Company's consolidated statements of operations.

Stock-Based Compensation

The Company recognizes stock-based compensation expense based on the grant date fair value of stock options and restricted stock units granted to employees, officers, and directors. Awards that vest as the recipient provides service are expensed on a straight-line basis over the requisite service period. The Company uses the Black-Scholes option pricing model to determine the grant date fair value of stock options as management believes it is the most appropriate valuation method for its option grants. The Black-Scholes model requires inputs for risk-free interest rate, dividend yield, volatility and expected lives of the options. The expected lives for options granted represent the period of time that options granted are expected to be outstanding. The Company uses the simplified method for determining the expected lives of options. Expected volatility is based upon an industry estimate or blended rate including the Company's historical trading activity. The risk-free rate for periods within the expected life of the option is based on the U.S. Treasury yield curve in effect at the time of the grant. The Company estimates the forfeiture rate based on historical data. This analysis is re-evaluated at least annually and the forfeiture rate is adjusted as necessary.

Income Taxes

The Company uses the asset and liability method to account for income taxes. Deferred tax assets and liabilities are determined based on the expected future tax consequences of temporary differences between the Company's financial statement carrying amounts and the tax basis of assets and liabilities using enacted tax rates expected to be in effect in the years in which the differences are expected to reverse. The Company currently maintains a 100% valuation allowance on its deferred tax assets.

Comprehensive Loss

Comprehensive loss is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. Changes in unrealized gains and losses on marketable securities represent the only difference between the Company's net loss and comprehensive loss.

Basic and Diluted Loss Per Common Share

Basic net loss per share is computed using the weighted average number of common shares outstanding during the period. Diluted net loss per common share is computed using the weighted average number of common shares outstanding and the weighted average dilutive potential common shares outstanding using the treasury stock method. However, for the six months ended June 30, 2023 and 2022, diluted net loss per share is the same as basic net loss per share because the inclusion of weighted average shares of common stock issuable upon the exercise of stock options and warrants or vesting of restricted stock units, and common stock issuable upon the conversion of preferred stock would be anti-dilutive. The following table summarizes outstanding securities not included in the computation of diluted net loss per common share, as their inclusion would be anti-dilutive:

	Six Months Ended June 30,	
	2023	2022
Common stock options	2,583,540	2,976,545
Restricted stock units	222,300	—
Preferred stock	2,369,797	1,969,797
Warrants	18,403	14,899

Recent Accounting Pronouncements

None

3. Liquidity and Uncertainties

The Company is subject to risks common to development stage companies in the biopharmaceutical industry including, but not limited to, uncertainty of product development and commercialization, dependence on key personnel, uncertainty of market acceptance of products and product reimbursement, product liability, uncertain protection of proprietary technology, potential inability to raise additional financing necessary for development and commercialization, and compliance with the U.S. Food and Drug Administration (FDA) and other government regulations.

The Company has incurred losses since inception, including approximately $162.7 million for the six months ended June 30, 2023, resulting in an accumulated deficit of approximately $1,125 million as of June 30, 2023. Management expects to incur losses for the foreseeable future. To date, the Company has funded its operations primarily through proceeds from sales of the Company's capital stock and debt financings. The Company believes that its cash, cash equivalents and marketable securities at June 30, 2023 will be sufficient to fund operations past one year from the issuance of these financial statements. To meet its future capital needs, the Company intends to raise additional capital through debt or equity financings, collaborations, partnerships or other strategic transactions. However, there can be no assurance that the Company will be able to complete any such transactions on acceptable terms or otherwise. The inability of the Company to obtain sufficient funds on acceptable terms when needed could have a material adverse effect on the Company's business, results of operations and financial condition. The Company has the ability to delay certain research activities and related clinical expenses if necessary due to liquidity concerns until a date when those concerns are relieved.

4. Cash, Cash Equivalents and Marketable Securities

A summary of cash, cash equivalents and available-for-sale marketable securities held by the Company as of June 30, 2023 and December 31, 2022 is as follows (in thousands):

	June 30, 2023			
	Cost	Unrealized gains	Unrealized losses	Fair value
Cash and cash equivalents:				
Cash (Level 1)	$ 8,185	$ —	$ —	$ 8,185
Money market funds (Level 1)	69,011	—	—	69,011
Total cash and cash equivalents	77,196	—	—	77,196
Marketable securities:				
Corporate debt securities due within 1 year of date of purchase (Level 2)	144,036	13	(105)	143,944
U.S. government and government sponsored entities due within 1 year of date of purchase (Level 2)	77,275	6	(3)	77,278
Total cash, cash equivalents and marketable securities	$298,507	$ 19	$ (108)	$ 298,418

	December 31, 2022			
	Cost	Unrealized gains	Unrealized losses	Fair value
Cash and cash equivalents:				
Cash (Level 1)	$ 15,100	$ —	$ —	$ 15,100
Money market funds (Level 1)	316,449	—	—	316,449
Total cash and cash equivalents	331,549	—	—	331,549
Marketable securities:				
Corporate debt securities due within 1 year of date of purchase (Level 2)	27,257	7	(39)	27,225
Total cash, cash equivalents and marketable securities	$ 358,806	$ 7	$ (39)	$ 358,774

5. Accrued Liabilities

Accrued liabilities as of June 30, 2023 and December 31, 2022 consisted of the following (in thousands):

	June 30, 2023	December 31, 2022
Contract research organization costs	$ 58,050	$ 53,119
Other clinical study related costs	3,605	6,582
Manufacturing and drug supply	3,556	11,262
Compensation and benefits	5,453	14,864
Professional fees	9,494	4,867
Other	1,603	767
Total accrued liabilities	$ 81,761	$ 91,461

6. Long Term Debt

In May 2022 the Company and its wholly-owned subsidiary, Canticle Pharmaceuticals, Inc., entered into the $250.0 million Loan Facility with the several banks and other financial institutions or entities party thereto (each, a “Lender” and collectively referred to as the “Lenders”), and Hercules Capital, Inc. (“Hercules”), in its capacity as administrative agent and collateral agent for itself and the Lenders. Under the terms of the Loan Facility, the first $50.0 million tranche was drawn at closing. The Company also could draw up to an additional $125.0 million in two separate tranches upon achievement of certain resmetirom clinical and regulatory milestones. A fourth tranche of $75.0 million could be drawn by the Company, subject to the approval of Hercules. The Loan Facility had a minimum interest rate of 7.45% and adjusts with changes in the prime rate. The Company will pay interest-only monthly payments of accrued interest under the Loan Facility for a period of 30 months, which period may be extended to 36, 48, and 60 months upon the successive achievement of certain clinical and regulatory milestones and if the Company maintains compliance with applicable covenants. The Loan Facility matures in May 2026 and may be extended an additional year upon the achievement of certain clinical and regulatory milestones. The Loan Facility is secured by a security interest in substantially all of the Company’s assets, other than intellectual property. It includes an end of term charge of 5.35% of the aggregate principal amount, which is accounted for in the loan discount. In connection with the first tranche drawn at closing, the Company issued Hercules a warrant to purchase 14,899 shares of Company common stock, which had a Black-Scholes value of $0.6 million.

On February 3, 2023, the Company entered into the First Amendment (the “Amendment”) to the Loan Facility (as amended, the “Amended Loan Facility”). Under the Amended Loan Facility, an additional $35.0 million was drawn under a second, expanded, $65.0 million tranche (“Tranche 2”) in February of 2023 following the Company’s achievement of the Phase 3 clinical development milestone. An additional $15.0 million was drawn under Tranche 2 in June of 2023. The Company has the ability to draw the remaining $15.0 million available under Tranche 2 by September 30, 2023 in accordance with the Amended Loan Facility. The third tranche (“Tranche 3”) of $75.0 million remains unchanged by the Amendment, and such borrowings are available subject to the Company obtaining a certain FDA approval for resmetirom. Coincident with the expansion of Tranche 2 borrowing capacity by $15 million, the Amendment reduced the fourth tranche under the Loan Facility (“Tranche 4”) by $15.0 million to $60.0 million , which amount is available subject to Hercules’ sole discretion. In connection with the $35.0 million drawn under Tranche 2 at the closing of the Amendment and $15.0 million drawn in June of 2023, the Company issued to Hercules and affiliates Tranche 2 Warrants to purchase 3,504 shares of common stock, which had a Black-Scholes value of $0.7 million. The Amendment reduced the interest rate under the Amended Loan Facility to the greater of (i) the prime rate as reported in The Wall Street Journal plus 2.45% and (ii) 8.25%. The Amendment and the Amended Loan Facility summary terms were disclosed in the Company’s Current Report on Form 8-K filed with the Securities and Exchange Commission on February 9, 2023.

The Loan Facility includes affirmative and restrictive financial covenants commencing on January 1, 2023, including maintenance of a minimum cash, cash equivalents and liquid funds covenant of $35.0 million, which may decrease in certain circumstances if the Company achieves certain clinical milestones and a revenue milestone, and a revenue-based covenant that could apply commencing at or after the time that financial reporting is due for the quarter ending September 30, 2024. The Loan Facility contains event of default provisions for: the Company’s failure to make required payments or maintain compliance with covenants under the Loan Facility; the Company’s breach of certain representations or default under certain obligations outside the Loan Facility; insolvency, attachment or judgment events affecting the Company; and any circumstance which has occurred or could reasonably be expected to have a material adverse effect on the Company, provided that, any failure to achieve a clinical milestone or approval milestone under the Loan Facility shall not in and of itself constitute a material adverse effect. The Loan Facility also includes customary covenants associated with a secured loan facility, including covenants concerning financial reporting obligations, and certain limitations on indebtedness, liens (including a negative pledge on intellectual property and other assets), investments, distributions (including dividends), collateral, investments, distributions, transfers, mergers or acquisitions, taxes, corporate changes, and deposit accounts.

As of June 30, 2023, the outstanding principal under the Loan Facility was $100.0 million. The interest rate as of June 30, 2023 was 10.70%. As of June 30, 2023, the Company was in compliance with all loan covenants and provisions.

Future minimum payments, including interest and principal, under the loans payable outstanding as of June 30, 2023 are as follows (in thousands):

Period Ending June 30, 2023:	Amount
2023 (remaining six months)	$ 5,372
2024	10,878
2025	69,044
Thereafter	46,363
	$131,657
Less amount representing interest	(26,307)
Less unamortized discount	(6,101)
Loans payable, net of discount	$ 99,249

7. Stockholders' Equity

Common Stock

Each common stockholder is entitled to one vote for each share of common stock held. The common stock will vote together with all other classes and series of stock of the Company as a single class on all actions to be taken by the Company's stockholders. Each share of common stock is entitled to receive dividends, as and when declared by the Company's board of directors. The Company has never declared cash dividends on its common stock and does not expect to do so in the foreseeable future.

Preferred Stock

The Series A and B Preferred Stock have a par value of $0.0001 per share and are convertible into shares of the common stock at a one-to-one ratio, subject to adjustment as provided in the Certificates of Designation of Preferences, Rights and Limitations of Series A Preferred Stock and Series B Preferred Stock that the Company filed with the Secretary of State of the State of Delaware on June 21, 2017 and December 22, 2022, respectively. The terms of the Series A and B Preferred Stock are set forth in such Certificates of Designation. Each share of the Series A and B Preferred Stock is convertible into shares of Common Stock following notice that may be given at the holder's option. Upon any liquidation, dissolution or winding-up of the Company, whether voluntary or involuntary, after the satisfaction in full of the debts of the Company and the payment of any liquidation preference owed to the holders of shares of capital stock of the Company ranking prior to the Series A and B Preferred Stock upon liquidation, the holders of the Series A and B Preferred Stock shall participate pari passu with the holders of the Common Stock (on an as-if-converted-to-Common-Stock basis) in the net assets of the Company. Shares of the Series A and B Preferred Stock will generally have no voting rights, except as required by law. Shares of the Series A and B Preferred Stock will be entitled to receive dividends before shares of any other class or series of capital stock of the Company (other than dividends in the form of the Common Stock) equal to the dividend payable on each share of the Common Stock, on an as-converted basis.

December 2022 Registered Direct Offering

In December 2022, the Company entered into a Securities Purchase Agreement (the "Purchase Agreement") with a group of institutional accredited investors, who were existing, non-controlling stockholders of the Company, pursuant to which the Company sold securities to the Investors in an offering that was registered under the Company's existing shelf registration statement (the "2022 Registered Direct Offering"). Under the terms of the Purchase Agreement, the Company sold 44,444 shares of its common stock at a price of $225 per share, and 400,000 shares of its Series B Convertible Preferred Stock at a price of $225 per share. The 2022 Registered Direct Offering resulted in gross proceeds to the Company of approximately $100.0 million, and net proceeds to the Company of approximately $99.5 million. The 2022 Registered Direct Offering closed on December 23, 2022.

At-The-Market Issuance Sales Agreement

In June 2021, the Company entered into an at-the-market sales agreement (the "2021 Sales Agreement") with Cowen and Company, LLC ("Cowen"), pursuant to which the Company could, from time to time, issue and sell shares of its common stock. The 2021 Sales Agreement initially authorized an aggregate offering of up to $200 million in shares of our common stock, at the Company's option, through Cowen as its sales agent. Sales of common stock through Cowen could be made by any method that is deemed an "at-the-market" offering as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, including by means of ordinary brokers' transactions at market prices, in block transactions or as otherwise agreed by the Company and Cowen. Subject to the terms and conditions of the 2021 Sales Agreement, Cowen would use commercially reasonable efforts consistent with its normal trading and sales practices to sell the common stock based upon the Company's instructions (including any price, time or size limits or other customary parameters or conditions the Company imposed).

In December 2022, the Company sold 738,900 shares of common stock under the 2021 Sales Agreement for an aggregate of $159.1 million in gross proceeds, with net proceeds to the Company of $155.9 million after deducting commissions and other transaction costs. In total, under the 2021 Sales Agreement the Company sold 1,235,943 shares for an aggregate of $199.9 million in gross proceeds, with net proceeds to the Company of approximately $195.8 million after deducting commissions and other transaction costs through December 31, 2022. Of those shares sold, 738,900 were sold in 2022, and 497,043 were sold in 2021. All shares were sold pursuant to the Company's effective shelf registration statement on Form S-3 (the "Registration Statement") and the prospectus supplement relating thereto. As of June 30, 2023, no amounts remained reserved and available for sale under the 2021 Sales Agreement and the related prospectus supplement.

In May 2023, the Company amended the 2021 Agreement (the "Sales Agreement Amendment"), with Cowen, pursuant to which the Company may, from time to time, issue and sell in additional $200 million in shares of its common stock. The Company is not obligated to make any sales of its common stock under this arrangement. Any shares sold will be sold pursuant to the Company's effective Registration Statement on Form S-3 (the "Registration Statement") and prospectus supplement filed pursuant to the Registration Statement. The Sales Agreement Amendment authorizes sales of shares of our common stock, from time to time, at the Company's option, through Cowen as its sales agent. Sales of common stock through Cowen may be made by any method that is deemed an "at-the-market" offering as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, and as described in the prospectus supplement. In total, under the Sales Agreement Amendment, the Company sold 85,901 shares for an aggregate of $22.4 million in gross proceeds, with net proceeds to the Company of approximately $21.8 million after deducting commissions and other transaction costs. All shares were sold pursuant to the Company's effective Registration Statement and the prospectus supplement relating thereto. As of June 30, 2023, $177.6 million remained reserved and available for sale under the 2023 Sales Agreement Amendment and the Company's related prospectus supplement.

8. Stock-based Compensation

The Company's 2015 Stock Plan, as amended, is our primary equity incentive compensation plan through which equity based grants are awarded. The 2015 Stock Plan provides for the grant of incentive stock options, non-statutory stock options, restricted stock, restricted stock units and other stock-based compensation awards to employees, officers, directors, and consultants of the Company. The administration of the 2015 Stock Plan is under the general supervision of the Compensation Committee of the Board of Directors. The terms of stock options awarded under the 2015 Stock Plan, in general, are determined by the Compensation Committee, provided the exercise price per share generally shall not be set at less than the fair market value of a share of the common stock on the date of grant and the term shall not be greater than ten years from the date the option is granted. As of June 30, 2023, the Company had restricted stock units and options outstanding to purchase an aggregate of 2,805,840 shares of its common stock, which includes options outstanding under its prior incentive compensation plan, the 2006 Stock Plan. As of June 30, 2023, 670,634 shares were available for future issuance under the 2015 Stock Plan.

Stock Options

The following table summarizes stock option activity during the six months ended June 30, 2023:

	Shares	Weighted average exercise price
Outstanding at January 1, 2023	2,857,054	$ 81.78
Options granted	5,205	283.08
Options exercised	(270,609)	89.26
Options cancelled	(8,110)	84.12
Outstanding at June 30, 2023	2,583,540	$ 81.40
Exercisable at June 30, 2023	1,719,944	$ 76.62

The total cash received by the Company as a result of stock option exercises was $21.8 million and $0 million, respectively, for the six months ended June 30, 2023 and 2022. The total intrinsic value of options exercised was $48.9 million and $0 million, respectively, for the six months ended June 30, 2023 and 2022. The weighted-average grant date fair values, based on the Black-Scholes option model, of options granted during the six months ended June 30, 2023 and 2022 were $219.02 and $55.84, respectively.

Restricted Stock Units

The Company's share-based compensation plan provides for awards of restricted stock units to employees, officers, directors and consultants to the Company. Restricted stock units vest over the service period, and are subject to forfeiture if employment or service terminates before vesting. As of June 30, 2023, the Company had 222,300 restricted stock units outstanding, with a weighted average grant date fair value of $294.19 per unit.

Stock-Based Compensation Expense

Stock-based compensation expense during the six months ended June 30, 2023 and 2022 was as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Stock-based compensation expense by type of award:				
Stock options	$ 7,431	$ 7,944	$ 16,029	$ 15,421
Restricted stock units	3,542	—	6,194	—
Total stock-based compensation expense	$ 10,973	$ 7,944	$ 22,223	$ 15,421
Effect of stock-based compensation expense by line item:				
Research and development	$ 5,184	$ 3,301	$ 10,570	$ 6,488
General and administrative	5,789	4,643	11,653	8,933
Total stock-based compensation expense included in net loss	$ 10,973	$ 7,944	$ 22,223	$ 15,421

Unrecognized stock-based compensation expense as of June 30, 2023 was $98.2 million with a weighted average remaining period of 2.90 years.

9. Commitments and Contingencies

The Company has a Research, Development and Commercialization Agreement with Hoffmann-La Roche ("Roche") which grants the Company a sole and exclusive license to develop, use, sell, offer for sale and import any Licensed Product as defined by the agreement.

The agreement requires future milestone payments to Roche. Remaining milestones under the agreement total $8 million and are payable upon Madrigal achieving specified objectives related to future regulatory approval in the United States and Europe of resmetirom or a product developed from resmetirom. Furthermore, a tiered single-digit royalty is payable on net sales of resmetirom or a product developed from resmetirom, subject to certain reductions. The Company has not achieved any additional product development or regulatory milestones and had no Licensed Product sales for the six months ended June 30, 2023 and 2022.

The Company has entered into customary contractual arrangements and letters of intent in preparation for and in support of the clinical trials.

********** END OF FINANCIAL STATEMENTS **********

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q includes “forward-looking statements” made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, that 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 “accelerate,” “achieve,” “allow,” “anticipates,” “appear,” “be,” “believes,” “can,” “continue,” “confidence,” “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, forward-looking statements contained in or incorporated by reference to this Quarterly Report relate to, among other things,

- 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 (including ex-U.S. launch/partnering plans), 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;
- Our ability to delay certain research activities and related clinical expenses as necessary;
- Our projected resources and sufficiency of capital to fund our operating expenses through the projected commercial launch of resmetirom, assuming Food and Drug Administration (“FDA”) approval is obtained;
- 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 our lead product candidate, resmetirom (formerly known as MGL-3196), including projected market size, sector leadership, and patient treatment estimates for non-alcoholic steatohepatitis (“NASH”) and nonalcoholic 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,
- Resmetirom’s potential to be a cost-effective specialty therapy for NASH patients with significant liver fibrosis,
- Plans, objectives and timing for making a Subpart H (Accelerated Approval of New Drugs for Serious or Life-Threatening Illnesses) submission to the FDA,
- Projections or objectives for obtaining accelerated or full approval for resmetirom for NASH patients with significant fibrosis (or non-cirrhotic NASH patients) and NASH patients with compensated cirrhosis,
- 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,
- 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 and/or first-to-market treatment option for patients with NASH and liver fibrosis;
- Anticipated or estimated future results of operations and expenses as we expand our resmetirom clinical development program and our commercial development program;
- Ex-U.S. launch/partnering plans,
- 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 liver 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,
- our continued reliance on third-party contract manufacturers for the manufacture of our product candidates, including resmetirom,
- 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 Quarterly Report. 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; enrollment and trial outlook uncertainties, generally, based on blinded, locked or limited trial data and in relation to COVID-19-related measures and individual precautionary measures that may be implemented or continued for an uncertain period of time; 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 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; 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. 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, 2022, filed with the SEC on February 23, 2023 (the "2022 Form 10-K"), as well as in our other filings with the SEC. You should read the 2022 Form 10-K, this Quarterly Report, 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.

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 or the rules of the NASDAQ Stock Market, or NASDAQ, 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.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The consolidated financial statements, included elsewhere in this Quarterly Report on Form 10-Q, and this Management's Discussion and Analysis of Financial Condition and Results of Operations should be read together with our audited financial statements and accompanying notes for year ended December 31, 2022 and the related Management's Discussion and Analysis of Financial Condition and Results of Operations, both of which are included in our Annual Report on Form 10-K. In addition to historical information, this discussion and analysis contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that involve risks and uncertainties, such as statements of our plans, objectives, expectations and intentions. As disclosed in this report under "Cautionary Note Regarding Forward-Looking Statements," our actual results could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the "Cautionary Note Regarding Forward-Looking Statements" and "Risk Factors" sections contained in our Annual Report on Form 10-K for the year ended December 31, 2022. Our operating results are not necessarily indicative of results that may occur for the full fiscal year or any other future period.

About Madrigal Pharmaceuticals, Inc.

Our Focus. We are a clinical-stage biopharmaceutical company pursuing novel therapeutics for nonalcoholic steatohepatitis, or NASH. Our lead product candidate, resmetirom, is a proprietary, liver-directed, selective thyroid hormone receptor-ß, or THR-ß, agonist being developed as a once-daily oral pill for the treatment of NASH.

Our Patient Market Opportunity. NASH is a serious inflammatory form of nonalcoholic fatty liver disease, or NAFLD. NAFLD has become the most common liver disease in the United States and other developed countries and is characterized by an accumulation of fat in the liver with no other apparent causes. NASH can progress to cirrhosis or liver failure, require liver transplantation and can also result in liver cancer. Progression of NASH to end stage liver disease will soon surpass all other causes of liver failure requiring liver transplantation. Importantly, beyond these critical conditions, NASH and NAFLD patients additionally suffer heightened cardiovascular risk and, in fact, die more frequently from cardiovascular events than from liver disease. NASH and NAFLD have grown as a consequence of rising worldwide obesity-related disorders. In the United States, NAFLD is estimated to affect approximately 25% of the population, and approximately 25% of those will progress from NAFLD to NASH. Current estimates place NASH prevalence at approximately 22 million people in the United States by 2024, with similar prevalence in Europe and Asia. The prevalence of NASH is also increasing in developing regions due to the adoption of a more sedentary lifestyle and a diet consisting of processed foods with high fat and fructose content.

Our Completed Studies. For NASH, we enrolled 125 patients in a Phase 2 clinical trial with resmetirom. We achieved the 12-week primary endpoint for this Phase 2 clinical trial and reported the results in December 2017, and we reported positive topline 36-week results at the conclusion of the Phase 2 clinical trial in May 2018. We also completed a 36-week, open-label extension study in 31 participating NASH patients from our Phase 2 clinical trial, which included 14 patients who received placebo in the main study.

On December 18, 2019 the Company announced it had opened for enrollment MAESTRO-NAFLD-1, a 52-week, non-invasive, multi-center, double-blind, placebo-controlled Phase 3 clinical study of patients with biopsy-confirmed or presumed NASH recruited from sites in the U.S. Key endpoints are safety, including safety biomarkers. Secondary endpoints include LDL cholesterol, lipid biomarkers, MRI-PDFF, NASH and fibrosis biomarkers. Except for serial liver biopsies, the study protocol is similar to the MAESTRO-NASH study (discussed below under "—Our Ongoing and Planned Studies"), with resmetirom doses of 80 mg or 100 mg or placebo. Enrollment objectives for this study were exceeded, with approximately 1,300 patients enrolled overall. Using noninvasive measures, MAESTRO-NAFLD-1 was designed to provide incremental safety information to support the NASH indication as well as provide additional data regarding clinically relevant key secondary efficacy endpoints to better characterize the potential clinical benefits of resmetirom on cardiovascular- and liver-related endpoints. In November of 2021, we reported data from the open label non-cirrhotic arm of MAESTRO-NAFLD-1, and in January 2022 we announced that we achieved primary and secondary endpoints for the double-blind portion of MAESTRO-NAFLD-1.

An additional open-label active treatment arm in 180 patients with early (well-compensated) NASH cirrhosis was conducted. Resmetirom was safe and well tolerated in the MAESTRO-NAFLD-1 open-label cohort of patients with well-compensated NASH cirrhosis. As observed in patients with noncirrhotic NASH, mild GI adverse events were seen at the beginning of therapy. Resmetirom reduced LDL-C, other atherogenic lipids and lipoproteins, and MRI-PDFF in patients with NASH cirrhosis and also reduced liver and spleen volume.

Our Ongoing and Planned Studies. On March 28, 2019, the Company announced that it had initiated MAESTRO-NASH, a Phase 3 trial in NASH with its once daily, oral thyroid hormone receptor beta selective agonist, resmetirom. This double-blind, placebo-controlled study is being conducted at more than 220 sites in the United States and the rest of the world. MAESTRO-NASH is a

multicenter, randomized, double-blind, placebo-controlled Phase 3 study of resmetirom in patients with liver biopsy-confirmed NASH and was initiated in March 2019. The subpart H portion of the study enrolled more than 1,000 patients with biopsy-proven NASH (at least half with F3 (advanced) fibrosis, the remainder F2 or F1B (moderate fibrosis) with a few earlier F1 patients), randomized 1:1:1 to receive once-daily resmetirom 80 mg, resmetirom 100 mg, or placebo. After 52 weeks of treatment, a second liver biopsy is performed. The dual primary surrogate endpoints on biopsy are NASH resolution with ≥2-point reduction in NAS (NAFLD Activity Score), and with no worsening of fibrosis OR a 1-point decrease in fibrosis with no worsening of NAS. Achievement of either primary endpoint is considered a successful trial outcome. A key secondary endpoint is lowering of LDL-C. All patients enrolled in the

MAESTRO-NASH study (approximately 1,750) 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 (52 weeks and 54 months) and hepatic decompensation events, as well as all-cause mortality. In December 2022, we reported topline results from the subpart H portion of the study: resmetirom achieved both primary endpoints with both daily oral doses, 80 mg and 100 mg, relative to placebo, as summarized in "- Key Developments" in our Annual Report on Form 10-K for the year ended December 31, 2022.

On July 13, 2021 we announced first patient dosed in a planned 52-week open label active treatment extension study of MAESTRO-NAFLD-1, named MAESTRO-NAFLD-Open Label Extension (OLE). The OLE study allows patients who complete MAESTRO-NAFLD-1 to consent to 52 weeks of active treatment with resmetirom, making this treatment available to both patients who were assigned to placebo in MAESTRO-NAFLD-1 and patients who were on resmetirom in MAESTRO-NAFLD-1.

In August 2022, Madrigal initiated MAESTRO-NASH-OUTCOMES, a randomized double-blind placebo-controlled study in approximately 700 patients with early NASH cirrhosis to allow for noninvasive monitoring of progression to liver decompensation events. A positive outcome is expected to support the full approval of resmetirom for noncirrhotic NASH, potentially accelerating the timeline to full approval. In addition, this study has the potential to support an additional indication for resmetirom in patients with well-compensated NASH cirrhosis.

Key Developments

In July 2023, Madrigal announced the completion of the rolling submission of its New Drug Application (NDA) to the FDA for resmetirom for the treatment of adults with NASH with liver fibrosis, a disease with no approved therapy. Madrigal has requested a priority review of the resmetirom NDA.

In April 2023, Madrigal announced that resmetirom has received Breakthrough Therapy designation from the FDA for the treatment of patients with NASH with liver fibrosis. Breakthrough Therapy designation is a process intended to expedite the development and review of drugs for serious or life-threatening conditions. The criteria for breakthrough therapy designation require preliminary clinical evidence that demonstrates the drug may have substantial improvement on at least one clinically significant endpoint over available therapy, or over placebo if there is no available therapy. A drug that receives Breakthrough Therapy designation is eligible for more intensive guidance on an efficient drug development program and organizational commitment involving senior managers from FDA.

Also in April 2023, Madrigal announced that the outcomes portion of the Phase 3 MAESTRO-NASH biopsy trial has completed enrollment. Enrollment of the MAESTRO-NASH study was closed at approximately 1,750 patients based on the enrollment target of the 54-month long-term clinical outcome portion of the study.

Basis of Presentation

Research and Development Expenses

Research and development expenses primarily consist of costs associated with our research activities, including the preclinical and clinical development of our product candidates. We expense our research and development expenses as incurred. We contract with clinical research organizations to manage our clinical trials under agreed upon budgets for each study, with oversight by our clinical program managers. We account for nonrefundable advance payments for goods and services that will be used in future research and development activities as expenses when the service has been performed or when the goods have been received. Manufacturing expense includes costs associated with drug formulation development and clinical drug production. We do not track employee and facility related research and development costs by project, as we typically use our employee and infrastructure resources across multiple research and development programs. We believe that the allocation of such costs would be arbitrary and not be meaningful.

Our research and development expenses consist primarily of:

- salaries and related expense, including stock-based compensation;
- external expenses paid to clinical trial sites, contract research organizations, laboratories, database software and consultants that conduct clinical trials;
- expenses related to development and the production of nonclinical and clinical trial supplies, including fees paid to contract manufacturers;
- expenses related to preclinical studies;
- expenses related to compliance with drug development regulatory requirements; and
- other allocated expenses, which include direct and allocated expenses for depreciation of equipment and other supplies.

We expect to continue to incur substantial expenses related to our development activities for the foreseeable future as we conduct our clinical studies programs, manufacturing and toxicology studies. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later stage clinical trials, additional drug manufacturing requirements, and later stage toxicology studies such as carcinogenicity studies. Our research and development expenses have increased period over period in each of 2023 and 2022 and we expect that our research and development expenses may increase in the future. The process of conducting preclinical studies and clinical trials necessary to obtain regulatory approval is costly and time consuming. The probability of success for each product candidate is affected by numerous factors, including preclinical data, clinical data, competition, manufacturing capability and commercial viability. Accordingly, we may never succeed in achieving marketing approval for any of our product candidates.

Completion dates and costs for our clinical development programs as well as our research program can vary significantly for each current and future product candidate and are difficult to predict. As a result, we cannot estimate with any degree of certainty the costs we will incur in connection with the development of our product candidates at this point in time. We expect that we will make determinations as to which programs and product candidates to pursue and how much funding to direct to each program and product candidate on an ongoing basis in response to the scientific success of research, results of ongoing and future clinical trials, potential collaborative agreements with respect to programs or potential product candidates, as well as ongoing assessments as to each current or future product candidate's commercial potential.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries, benefits and stock-based compensation expenses for employees, management costs, costs associated with obtaining and maintaining our patent portfolio, professional fees for accounting, auditing, consulting and legal services, and allocated overhead expenses.

We expect that our general and administrative expenses will increase in the future as we expand our operating activities, prepare for commercialization, maintain and expand our patent portfolio and incur additional costs associated with being a public company and maintaining compliance with exchange listing and SEC requirements. We expect these potential increases will likely include management costs, legal fees, accounting fees, directors' and officers' liability insurance premiums and expenses associated with investor relations.

Critical Accounting Policies and Estimates

Our management's discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amount of assets, liabilities, and expenses and the disclosure of contingent assets and liabilities as of the date of the financial statements. On an ongoing basis, we evaluate our estimates and judgments, including those related to accrued research and development expenses and stock-based compensation expense. We base our estimates on historical experience, known trends and events, and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ materially from these estimates under different assumptions or conditions. There have been no material changes in our critical accounting policies and significant judgments and estimates during the six months ended June 30, 2023, as compared to those disclosed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 filed with the SEC on February 23, 2023.

Results of Operations

Three Months Ended June 30, 2023 and 2022

The following table provides comparative unaudited results of operations for the three months ended June 30, 2023 and 2022 (in thousands):

	Three Months Ended June 30,		Increase / (Decrease)	
	2023	2022	$	%
Research and Development Expenses	$ 68,605	$ 58,499	10,106	17%
General and Administrative Expenses	17,845	11,774	6,071	52%
Interest (Income)	(3,551)	(323)	3,228	999%
Interest Expense	2,901	780	2,121	272%
	$ 85,800	$ 70,730	15,070	21%

Revenue

We had no revenue for the three months ended June 30, 2023 and 2022.

Research and Development Expenses

Our research and development expenses were $68.6 million for the three months ended June 30, 2023, compared to $58.5 million in the corresponding period in 2022. Research and development expenses increased by $10.1 million in the 2023 period due primarily to the additional activities related to our Phase 3 clinical trials, including MAESTRO-NASH Outcomes, an increase in headcount, and an increase in stock compensation expense. We expect our research and development expenses to increase as we advance our clinical and preclinical development programs for resmetirom.

General and Administrative Expenses

Our general and administrative expenses were $17.8 million for the three months ended June 30, 2023, compared to $11.8 million in the corresponding period in 2022. General and administrative expenses increased by $6.1 million in the 2023 period due primarily to increases in commercial preparation activities, including a corresponding increase in headcount, and an increase in stock compensation expense. We believe our general and administrative expenses may increase over time as we advance our clinical and preclinical development programs for resmetirom, prepare for commercialization, and expand our operating activities, which will likely result in an increase in our headcount, consulting services, and related overhead needed to support those efforts.

Interest Income

Our net interest income was $3.6 million for the three months ended June 30, 2023, compared to $0.3 million in the corresponding period in 2022. The increase in interest income was due primarily to higher principal balances and interest rates in 2023.

Interest Expense

Our interest expense was $2.9 million for the three months ended June 30, 2023, compared to $0.8 million in the corresponding period in 2022. The increase in interest expense was primarily as a result of higher outstanding principal balances during the period under the Loan Facility with Hercules.

Six Months Ended June 30, 2023 and 2022

The following table provides comparative unaudited results of operations for the six months ended June 30, 2023 and 2022 (in thousands):

	Six Months Ended June 30,		Increase / (Decrease)	
	2023	2022	$	%
Research and Development Expenses	$ 130,759	$ 106,428	24,331	23%
General and Administrative Expenses	34,027	21,432	12,595	59%
Interest (Income)	(7,327)	(392)	6,935	1769%
Interest Expense	5,237	780	4,457	571%
	$ 162,696	$ 128,248	34,448	27%

Revenue

We had no revenue for the six months ended June 30, 2023 and 2022.

Research and Development Expenses

Our research and development expenses were $130.8 million for the six months ended June 30, 2023, compared to $106.4 million in the corresponding period in 2022. Research and development expenses increased by $24.3 million in the 2023 period due primarily to the additional activities related to our Phase 3 clinical trials, including MAESTRO-NASH Outcomes, an increase in headcount, and an increase in stock compensation expense. We expect our research and development expenses to increase as we advance our clinical and preclinical development programs for resmetirom.

General and Administrative Expenses

Our general and administrative expenses were $34.0 million for the six months ended June 30, 2023, compared to $21.4 million in the corresponding period in 2022. General and administrative expenses increased by $12.6 million in the 2023 period due primarily to increases in commercial preparation activities, including a corresponding increase in headcount, and an increase in stock compensation expense. We believe our general and administrative expenses may increase over time as we advance our clinical and preclinical development programs for resmetirom, prepare for commercialization, and expand our operating activities, which will likely result in an increase in our headcount, consulting services, and related overhead needed to support those efforts.

Interest Income

Our net interest income was $7.3 million for the six months ended June 30, 2023, compared to $0.4 million in the corresponding period in 2022. The increase in interest income was due primarily to higher principal balances and interest rates in 2023.

Interest Expense

Our interest expense was $5.2 million for the six months ended June 30, 2023, compared to $0.8 million in the corresponding period in 2022. The increase in interest expense was primarily as a result of higher outstanding principal balances during the period under the Loan Facility with Hercules.

Liquidity and Capital Resources

Since inception, we have incurred significant net losses and we have funded our operations primarily through the issuance of shares of our common stock and shares of our preferred stock, borrowings under the Loan Facility with Hercules, the issuance of convertible debt and the proceeds from the merger with Synta Pharmaceuticals Corp. Our most significant use of capital pertains to salaries and benefits for our employees, including clinical, scientific, operational, financial and management personnel, and external research and development expenses, such as clinical trials and preclinical activity related to our product candidates.

As of June 30, 2023, we had cash, cash equivalents and marketable securities totaling $298.4 million compared to $358.8 million as of December 31, 2022, with this decrease attributable to funding of operations, partially offset by $50.0 million drawn from the Loan Facility with Hercules, proceeds from the exercise of stock options, and proceeds from the at-the-market sales agreement with Cowen and Company, LLC (“Cowen”). Our cash and investment balances are held in a variety of interest-bearing instruments, including obligations of U.S. government agencies, U.S. Treasury debt securities, corporate debt securities and money market funds. Cash in excess of immediate requirements is invested in accordance with our investment policy with a view toward capital preservation and liquidity.

We anticipate continuing to incur operating losses for the foreseeable future. While our rate of cash usage will likely increase in the future, in particular to support our product development and clinical trial efforts, as well as preparation for commercialization, we believe our available cash resources as of June 30, 2023 will be sufficient to fund our operations past one year from the issuance of the financial statements contained herein. Our future long-term liquidity requirements will be substantial and will depend on many factors. To meet future long-term liquidity requirements, as well as maintain compliance with certain of our Loan Facility covenants, we will need to raise additional capital to fund our operations through equity or debt financings, collaborations, partnerships or other strategic transactions. We regularly consider fundraising opportunities and may decide, from time to time, to raise capital based on various factors, including market conditions and our plans of operation. Additional capital may not be available on terms acceptable to us, or at all. We also have the ability to delay certain research activities and related clinical expenses, as well as commercial preparation investments, if necessary due to liquidity concerns until a date when those concerns are relieved. If adequate funds are not available, or if the terms of potential funding sources are unfavorable, our business and our ability to develop our product candidates would be harmed. Furthermore, any sales of additional equity securities may result in dilution to our stockholders, and any debt financing may include covenants that restrict our business.

At-the-Market Sales Agreement

On May 9, 2023, the Company entered into Amendment No. 1 (the "Amendment") to the Sales Agreement, dated June 1, 2021 (as amended, the "Sales Agreement") with Cowen, which Amendment increased by up to an additional $200,000,000 the amount of common stock that can be issued and sold by the Company from time to time through or to Cowen under the Sales Agreement, acting as agent or principal.

Sales of our common stock, if any, under the Sales Agreement will be made by any method that is deemed to be an "at the market" offering as defined in Rule 415(a)(4) of the Securities Act of 1933, as amended. The Company has no obligation to sell any common stock and may at any time suspend offers under the Sales Agreement or terminate the Sales Agreement pursuant to its terms.

Loan Facility

Please see "Note 6 – Long Term Debt" to the condensed consolidated financial statements included in this Quarterly Report on Form 10-Q for information on our Loan Facility with Hercules.

Cash Flows

The following table provides a summary of our net cash flow activity (in thousands):

	Six Months Ended June 30,	
	2023	2022
Net cash used in operating activities	$(159,377)	$(107,273)
Net cash provided by (used in) investing activities	(190,596)	75,162
Net cash provided by financing activities	95,620	49,114
Net increase (decrease) in cash and cash equivalents	$(254,353)	$ 17,003

Net cash used in operating activities was $159.4 million for the six months ended June 30, 2023, compared to $107.3 million for the corresponding period in 2022. The use of cash in these periods resulted primarily from our losses from operations, as adjusted for non-cash charges for stock-based compensation, and changes in our working capital accounts.

Net cash used in investing activities was $190.6 million for the six months ended June 30, 2023, compared to $75.2 million provided by for the corresponding period in 2022. Net cash used in investing activities for the six months ended June 30, 2023 primarily consisted of $290.7 million of purchases of marketable securities for our investment portfolio, partially offset by $100.2 million from sales and maturities of marketable securities. Net cash provided by investing activities for the corresponding period in 2022 primarily consisted of $191.8 million from sales and maturities of marketable securities, partially offset by $116.5 million of purchases of marketable securities for our investment portfolio.

Net cash provided by financing activities was $95.6 million for the six months ended June 30, 2023, compared to $49.1 million for the corresponding period in 2022. Financing activities for the six months ended June 30, 2023 consisted of $50.0 million from borrowings under the Loan Facility, $24.2 million of proceeds from the exercise of common stock options, and $21.8 million from sales of our common stock under the 2023 Sales Agreement, partially offset by $0.3 million of loan issuance costs.

Contractual Obligations and Commitments

Except for the future minimum payments due on the Loan Facility with Hercules set forth in "Note 6 – Long Term Debt" to the condensed consolidated financial statements included in this Quarterly Report on Form 10-Q, no significant changes to contractual obligations and commitments occurred during the six months ended June 30, 2023, as compared to those disclosed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 filed with the SEC on February 23, 2023.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Interest Rate Risk

Our exposure to market risk is confined to our cash, cash equivalents and marketable securities and Loan Facility. We regularly review our investments and monitor the financial markets. We invest in high-quality financial instruments, primarily money market funds, U.S. government and agency securities, government- sponsored bond obligations and certain other corporate debt securities, with the effective duration of the portfolio less than twelve months and no security with a duration in excess of twenty-four months, which we believe are subject to limited credit risk. We currently do not hedge interest rate exposure. Due to the short-term duration of our investment portfolio and the current risk profile of our investments, we believe that an immediate 10% change in interest rates would not have a material effect on the fair market value of our portfolio. We do not believe that we have any material exposure to interest rate risk or changes in credit ratings arising from our investments.

In May 2022 we entered into the Loan Facility, which has an interest rate that is linked to the prime rate. We do not believe that we have any material exposure to interest rate risk given the current principal amount of the loan.

Capital Market Risk

We currently have no product revenues and depend on funds raised through other sources. One source of funding is through future debt or equity offerings. Our ability to raise funds in this manner depends upon, among other things, capital market forces affecting our stock price and the factors described in our “Cautionary Note Regarding Forward-Looking “Statements.” “Liquidity and Capital Resources” and “Risk Factors” disclosures included or referred to in this filing.

Effects of Inflation

Inflation generally affects us with increased cost of labor and clinical trial costs. We do not believe that inflation and changing prices had a significant impact on our results of operations for any periods presented herein.

Item 4. Controls and Procedures.

Definition and Limitations of Disclosure Controls

Our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) are designed to provide reasonable assurance that information required to be disclosed by us in the reports that we file under the Exchange Act, such as this Quarterly Report, is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. Our management evaluates these controls and procedures on an ongoing basis.

We carried out an evaluation, under the supervision of and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report. Based on the foregoing, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level.

Limitations on the Effectiveness of Controls and Procedures

In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable, not absolute, assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs. The design of any disclosure controls and procedures also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings.

We are not party to any material pending legal proceedings. From time to time, we may be involved in legal proceedings arising in the ordinary course of business.

Item 1A. Risk Factors.

Except as set forth below, there have been no material changes to the risk factors included in detail in the "Risk Factors" sections appearing in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2022, filed with the SEC on February 23, 2023.

Funds affiliated with Baker Bros. Advisors LP hold a significant portion of our total outstanding shares of common stock (including shares of our common stock issuable upon conversion of shares of our Series A Convertible Preferred Stock and Series B Convertible Preferred Stock), and any sale of such shares into the market, or perception that sales could occur, in the future could cause the market price of our common stock to drop significantly.

Pursuant to a Registration Rights Agreement, dated August 7, 2023, among the Company, 667, L.P. and Baker Brothers Life Sciences, L.P., the Company filed with the SEC on August 8, 2023 a prospectus supplement to the prospectus that forms a part of its effective registration statement on Form S-3 registering for resale up to 3,914,910 shares of our common stock (which includes 1,969,797 shares of common stock issuable upon the conversion of our Series A Convertible Preferred Stock and 400,000 shares of common stock issuable upon the conversion of our Series B Convertible Preferred Stock, each of which are common stock equivalents with no voting rights, that are convertible into shares of common stock on a 1-for-1 basis only to the extent that after giving effect to such conversion the holders thereof and their affiliates and any persons who are members of a Section 13(d) group with the holders or their affiliates would beneficially own (in the aggregate, for purposes of Rule 13d-3 under the Exchange Act) no more than 4.99% of the outstanding common stock, which may be increased or decreased up to 19.99% at the holder's election on 61 days' notice and certain limitations) owned by funds affiliated with Baker Bros. Advisors LP ("Baker Bros."). This represents approximately 18.8% of our total outstanding shares of common stock as of July 31, 2023 on a fully as-converted to common stock basis. Sales of a substantial number of shares of our common stock in the public market by Baker Bros., or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that sales by Baker Bros., or any perception that sales may occur, may have on the prevailing market price of our common stock.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

In June of 2023, in accordance with the terms of its Loan and Security Agreement, as amended, (the "Loan Facility") with Hercules Capital, Inc. ("Hercules") the Company issued Hercules and affiliates warrants to purchase 1,051 shares of its common stock at an exercise price of $285.31 per share. The warrant had a Black-Scholes value of $0.2 million, and was issued as consideration in connection with the Company's borrowing of $15 million under the second tranche of the Loan Facility (as described in "Note 6 – Long Term Debt" to the condensed consolidated financial statements included in this Quarterly Report on Form 10-Q).

All warrants issued to Hercules under the Loan Facility have been issued in reliance upon the exemption provided in Section 4(a)(2) of the Securities Act of 1933, as amended and/or Regulation D promulgated thereunder.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

On June 15, 2023, Julian Baker and Raymond Cheong, Ph.D./MD were appointed to the Board as Class III directors and will serve terms lasting until the Company's Annual Meeting of Stockholders to be held in 2025, and until their respective successors have been elected and qualified. The same day the Board determined that it was appropriate for the Company to institute changes to its Board governance structure and implement a separation of the Chairman and Chief Executive Officer functions. Effective June 15, 2023, Julian Baker was appointed to serve as the independent Chairman of the Board of Directors and Paul A. Friedman, M.D. continued service as the Company's Chief Executive Officer and as a Class I director on the Board until the Company's Annual Meeting of Stockholders to be held in 2026, and until his successor has been elected and qualified.

Mr. Baker and Dr. Cheong are affiliated with Baker Bros. Advisors LP and its related funds (collectively, "Baker Bros."), which are significant owners of the Company's capital stock, as disclosed in SEC filings. Mr. Baker is a managing member of the general partner of Baker Bros. Advisors LP., and Dr. Cheong is a Managing Director at Baker Brothers Investments. In connection with the appointment of Mr. Baker and Dr. Cheong to the Board, Baker Bros. waived rights under that certain Securities Purchase Agreement, dated June 20, 2017 (the "2017 SPA"), as amended by Amendments No. 1 and 2 (collectively, the "SPA"), to designate a director to the Board while Mr. Baker or Dr. Cheong are on the Board or to appoint a Board observer subject the SPA, while Mr. Baker or Dr. Cheong are on the Board or serving as a Board observer.

Registration Rights Agreement Signing; Resale Prospectus Filing

Pursuant to the terms of the 2017 SPA, the Company agreed with certain fund affiliates of Baker Bros. (the "Baker Bros. Funds" or "BBA Investors") that if the BBA Investors determined, based on the totality of the circumstances, that they may be deemed to be "affiliates" of the Company within the meaning of Rule 144 of the Securities Act of 1933, as amended (the "Securities Act"), whether through the exercise of their board designation rights under the SPA or otherwise, the Company would enter into the registration rights agreement with the BBA Investors in the form attached to the 2017 SPA (the "Registration Rights Agreement"). The BBA Investors informed the Company prior to the filing of this Form 10-Q they may be deemed to be "affiliates" of the Company and thereafter entered into the Registration Rights Agreement with the Company on August 7, 2023 covering certain resale

registration rights with respect to shares of the Company's common stock (including shares of common stock issuable upon the conversion of any securities of the Company) that are now held or are hereafter acquired by the BBA Investors (the "Registrable Securities").

Under the Registration Rights Agreement, and following request by the BBA Investors, the Company filed, in connection with the filing of this Form 10-Q, a resale prospectus supplement to the prospectus that forms a part of the Company's effective Registration Statement on Form S-3ASR (the "Resale Prospectus") registering the Registrable Securities for resale in satisfaction of the Company's obligations under the Registration Rights Agreement. The Resale Prospectus registers or covers for resale up to 3,914,910 shares of our common stock currently owned or that may be acquired upon the conversion of securities beneficially owned by the Baker Bros. Funds (the "Resale Shares"). The Company is obligated under the Registration Rights Agreement to register additional Registrable Securities acquired by the BBA Investors, so the Company may be required to file additional supplements to the Resale Prospectus in the future to increase the number of shares that are covered thereby. The Company is obligated to use its reasonable best efforts to maintain the effectiveness of the Resale Prospectus (or any other appropriate subsequent form registering the Registrable Securities) until the earlier of such time that (i) all Registrable Securities covered by the Resale Prospectus have been sold or may be sold freely without limitations or restrictions as to volume or manner of sale pursuant to Rule 144 of the Securities Act, or (ii) all Registrable Securities covered by the Resale Prospectus otherwise cease to be considered Registrable Securities pursuant to the terms of the Registration Rights Agreement. Under the Registration Rights Agreement, the Baker Bros. Funds have the right to one underwritten public offering per calendar year, but no more than three underwritten public offerings in total, to effect the sale or distribution of their Registrable Securities, subject to specified exceptions, conditions and limitations. The rights of the Baker Bros. Funds concerning Registrable Securities under the Registration Rights Agreement will continue in effect for up to ten years following the date of the Registration Rights Agreement.

The foregoing description of the Registration Rights Agreement does not purport to be complete and is qualified in its entirety by reference to the full text of the Registration Rights Agreement, which is incorporated by reference as an exhibit to this Form 10-Q and is incorporated herein by reference. The Company is filing herewith a copy of the opinion of Hogan Lovells US LLP regarding the legality of the Resale Shares, attached hereto as an exhibit to this Form 10-Q.

The Company is not offering for sale any shares of common stock under the Resale Prospectus, and the Company will not receive any proceeds from the sale of any Resale Shares by the selling stockholder from time to time pursuant to the resale prospectus.

Item 6. Exhibits.

The exhibits filed or furnished as part of this Quarterly Report on Form 10-Q are set forth on the Exhibit Index, which Exhibit Index is incorporated herein by reference.

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
3.1	Certificate of Amendment to Restated Certificate of Incorporation of Madrigal Pharmaceuticals, Inc., as filed on June 16, 2023 with the Secretary of State of the State of Delaware	8-K	001-33277	3.1	June 20, 2023	
5.1	Legal Opinion of Hogan Lovells US LLP					X
10.1	Amendment No. 1 to Sales Agreement, dated May 9, 2023, by and between Madrigal Pharmaceuticals, Inc. and Cowen and Company, LLC.	8-K	001-33277	1.1	May 9, 2023	
10.2	Registration Rights Agreement, dated August 7, 2023, by and among Madrigal Pharmaceuticals, Inc., 667, L.P. and Baker Brothers Life Sciences, L.P.					X
10.3	Form of RSU Agreement for Directors					X
10.4	Form of RSU Agreement for Executive Officers					X
10.5	Form of RSU Agreement for Employees					X
23.1	Consent of Hogan Lovells US LLP (included in Exhibit 5.1)					X
31.1	Certification of Principal Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Principal Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1*	Certifications of Principal Executive Officer and Principal Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
101.INS	Inline XBRL Instance Document.					X
101.SCH	Inline XBRL Taxonomy Extension Schema Document.					X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.					X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.					X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.					X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.					X
104	Inline XBRL for the cover page of this Quarterly Report on Form 10-Q, included in the Exhibit 101 Inline XBRL Document Set.					

* The certifications attached as Exhibit 32.1 that accompany this Quarterly Report pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, shall not be deemed “filed” by the registrant for purposes of Section 18 of the Exchange Act and are not to be incorporated by reference into any of the registrant’s filings under the Securities Act or the Exchange Act, irrespective of any general incorporation language contained in any such filing.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

MADRIGAL PHARMACEUTICALS, INC.

Date: August 8, 2023

By: /s/ Paul A. Friedman, M.D.
Paul A. Friedman, M.D.
Chief Executive Officer and Chairman of the Board
(Principal Executive Officer)

Date: August 8, 2023

By: /s/ Alex G. Howarth
Alex G. Howarth
Senior Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 5.1

Hogan Lovells US LLP
555 Thirteenth Street, NW
Washington, D.C. 20004
T +1 202 637 5600
F +1 202 637 5910
www.hoganlovells.com

August 8, 2023

Board of Directors
Madrigal Pharmaceuticals, Inc.
Four Tower Bridge
200 Barr Harbor Drive, Suite 200
West Conshohocken, PA 19428

Ladies and Gentlemen:

We are acting as counsel to Madrigal Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), in connection with the public offering by entities affiliated with Baker Bros. Advisors LP (collectively, the "**Selling Stockholder**") of up to (i) 1,545,113 shares of the Company's common stock, par value $0.01 per share ("**Common Stock**") currently issued and outstanding (the "**Outstanding Shares**"), including 979,457 shares of Common Stock purchased by the Selling Stockholders in open market transactions (the "**Open Market Shares**") and (ii) 1,969,797 shares of Common Stock issuable upon conversion (the "**Series A Conversion Shares**") of the Company's Series A Convertible Preferred Stock, par value $0.01 per share (the "**Series A Preferred Shares**") and 400,000 shares of Common Stock issuable upon conversion (the "**Series B Conversion Shares**" and, together with the Series A Conversion Shares, the "**Conversion Shares**") of the Company's Series B Convertible Preferred Stock, par value $0.01 per share (the "**Series B Preferred Shares**") owned by the Selling Stockholder pursuant to the prospectus supplement, dated August 8, 2023 (the "**Prospectus Supplement**") to the Company's registration statement on Form S-3 (the "**Registration Statement**") filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "**Act**") on June 1, 2021, including a base prospectus (the "**Base Prospectus**" and together with the Prospectus Supplement, the "**Prospectus**") that forms a part thereof. This opinion letter is furnished to you at your request to enable you to fulfill the requirements of Item 601(b)(5) of Regulation S-K, 17 C.F.R. § 229.601(b)(5), in connection with the Registration Statement.

For purposes of this opinion letter, we have examined copies of such agreements, instruments and documents as we have deemed an appropriate basis on which to render the opinions hereinafter expressed. In our examination of the aforesaid documents, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the accuracy and completeness of all documents submitted to us, the authenticity of all original documents, and the conformity to authentic original documents of all documents submitted to us as copies (including pdfs). As to all matters of fact, we have relied on the representations and statements of fact made in the documents so reviewed, and we have not independently established the facts so relied on. This opinion letter is given, and all statements herein are made, in the context of the foregoing. For purposes of our opinion, we assume that the Open Market Shares were, when originally issued, duly authorized,

validly issued, fully-paid and non-assessable, and were the subject of a legal opinion issued prior to the date hereof by another firm of licensed attorneys to such effect.

This opinion letter is based as to matters of law solely on the Delaware General Corporation Law, as amended. We express no opinion herein as to any other statutes, rules or regulations.

Based upon, subject to and limited by the foregoing, we are of the opinion that (i) the Outstanding Shares are validly issued, fully paid, and nonassessable, and (ii) the Conversion Shares have been duly authorized and, if issued upon conversion of the Series A Preferred Shares and the Series B Preferred Shares on the date hereof in accordance with the Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock, the Certificate of Designation of Preferences, Rights and Limitations of Series B Convertible Preferred Stock and the Restated Certificate of Incorporation, as amended, of the Company, would be validly issued, fully paid and non-assessable.

This opinion letter has been prepared for use in connection with the filing by the Company of a Quarterly Report on Form 10-Q on the date hereof, which Form 10-Q will be incorporated by reference into the Registration Statement and Prospectus, and speaks as of the date hereof. We assume no obligation to advise of any changes in the foregoing subsequent to the delivery of this letter.

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the above-described Form 10-Q and to the reference to this firm under the caption “Legal Matters” in the Prospectus. In giving this consent, we do not thereby admit that we are an “expert” within the meaning of the Act.

Very truly yours,

/s/ Hogan Lovells US LLP

Exhibit 10.2

REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement (this "Agreement") is made as of August 7, 2023 by and between Madrigal Pharmaceuticals, Inc., a Delaware corporation (the "Company"), and the persons listed on the attached Schedule A who are signatories to this Agreement (collectively, the "Investors"). Unless otherwise defined herein, capitalized terms used in this Agreement have the respective meanings ascribed to them in Section 1.

RECITALS

WHEREAS, the Company and the Investors wish to provide for certain arrangements with respect to the registration of the Registrable Securities (as defined below) by the Company under the Securities Act (as defined below).

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth herein, and other consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto agree as follows:

Section 1
Definitions

1.1. Certain Definitions. In addition to the terms defined elsewhere in this Agreement, as used in this Agreement, the following terms have the respective meanings set forth below:

(a) "Board" shall mean the Board of Directors of the Company.

(b) "Commission" shall mean the Securities and Exchange Commission or any other federal agency at the time administering the Securities Act.

(c) "Common Stock" shall mean the common stock of the Company, par value $0.0001 per share.

(d) "Exchange Act" shall mean the Securities Exchange Act of 1934, as amended, or any similar successor federal statute and the rules and regulations thereunder, all as the same shall be in effect from time to time.

(e) "Other Securities" shall mean securities of the Company, other than Registrable Securities (as defined below), with respect to which registration rights have been granted by the Company from time to time.

(f) "Person" shall mean any individual, partnership, corporation, company, association, trust, joint venture, limited liability company, unincorporated organization, entity or division, or any government, governmental department or agency or political subdivision thereof.

(g) "Registrable Securities" shall mean shares of Common Stock and any Common Stock issuable upon the exercise or conversion of any other securities (whether equity, debt or otherwise) of the Company, including, but not limited to, the shares of Common Stock issued or issuable upon conversion of the Company's Series A Convertible Preferred Stock, now owned or hereafter acquired by any of the Investors.

(h) The terms "register," "registered" and "registration" shall refer to a registration effected by preparing and filing a Registration Statement in compliance with the Securities Act, and such Registration Statement becoming effective under the Securities Act.

(i) "Registration Expenses" shall mean all expenses incurred by the Company in effecting any registration pursuant to this Agreement, including, without limitation, all registration, qualification, and filing fees, printing expenses, escrow fees, fees and disbursements of counsel for the Company and up to $50,000 of reasonable legal expenses of one special counsel for Investors (if different from the Company's counsel and if such counsel is reasonably approved by the Company) for underwritten public offerings, blue sky fees and expenses, and expenses of any regular or special audits incident to or required by any such registration, but shall not include Selling Expenses.

(j) "Registration Statement" means any registration statement of the Company filed with, or to be filed with, the Commission under the Securities Act, including the related prospectus, amendments and supplements to such registration statement, including pre- and post-effective amendments, and all exhibits and all material incorporated by reference in such registration statement as may be necessary to comply with applicable securities laws other than a registration statement (and related prospectus) filed on Form S-4 or Form S-8 or any successor forms thereto.

(k) "Rule 144" shall mean Rule 144 as promulgated by the Commission under the Securities Act, as such rule may be amended from time to time, or any similar successor rule that may be promulgated by the Commission.

(l) "Securities Act" shall mean the Securities Act of 1933, as amended, or any similar successor federal statute and the rules and regulations thereunder, all as the same shall be in effect from time to time.

(m) "Selling Expenses" shall mean all underwriting discounts and selling commissions applicable to the sale of Registrable Securities, the fees and expenses of any legal counsel and any other advisors any of the Investors engage and all similar fees and commissions relating to the Investors' disposition of the Registrable Securities.

(n) "Series A Convertible Preferred Stock" shall mean the Series A Convertible Preferred Stock, par value $0.0001 per share, issued by the Company pursuant to the terms and conditions of that certain Securities Purchase Agreement dated as of June 20, 2017, by and among the Company and the parties signatory thereto.

Section 2
Resale Registration Rights

2.1. Resale Registration Rights.

(a) Following demand by any Investor, the Company shall file with the Commission a Registration Statement on Form S-3 (except if the Company is not then eligible to register for resale the Registrable Securities on Form S-3, in which case such registration shall be on another appropriate form in accordance with the Securities Act) covering the resale of the Registrable Securities by the Investors (the "Resale Registration Shelf"), and the Company shall file such Resale Registration Shelf as promptly as reasonably practicable following such demand, and in any event within sixty (60) days of such demand. Such Resale Registration Shelf shall include a "final" prospectus, including the information required by Item 507 of Regulation S-K of the Securities Act, as provided by the Investors in accordance with Section 2.7. Notwithstanding the foregoing, before filing the Resale Registration Shelf,

the Company shall furnish to the Investors a copy of the Resale Registration Shelf and afford the Investors an opportunity to review and comment on the Resale Registration Shelf. The Company's obligation pursuant to this Section 2.1(a) is conditioned upon the Investors providing the information contemplated in Section 2.7.

(b) The Company shall use its reasonable best efforts to cause the Resale Registration Shelf and related prospectuses to become effective as promptly as practicable after filing. The Company shall use its reasonable best efforts to cause such Registration Statement to remain effective under the Securities Act until the earlier of the date (i) all Registrable Securities covered by the Resale Registration Shelf have been sold or may be sold freely without limitations or restrictions as to volume or manner of sale pursuant to Rule 144 or (ii) all Registrable Securities covered by the Resale Registration Shelf otherwise cease to be Registrable Securities pursuant to Section 2.9 hereof. The Company shall promptly, and within two (2) business days after the Company confirms effectiveness of the Resale Registration Shelf with the Commission, notify the Investors of the effectiveness of the Resale Registration Shelf.

(c) Notwithstanding anything contained herein to the contrary, the Company shall not be obligated to effect, or to take any action to effect, a registration pursuant to Section 2.1(a):

(i) if the Company has and maintains an effective Registration Statement on Form S-3ASR that provides for the resale of an unlimited number of securities by selling stockholders (a "Company Registration Shelf"); or

(ii) during the period forty-five (45) days prior to the Company's good faith estimate of the date of filing of a Company Registration Shelf; or

(iii) if the Company has caused a Registration Statement to become effective pursuant to this Section 2.1 during the prior twelve (12) month period.

(d) If the Company has a Company Registration Shelf in place at any time in which the Investors make a demand pursuant to Section 2.1(a), the Company shall file with the Commission, as promptly as practicable, and in any event within fifteen (15) business days after such demand, a "final" prospectus supplement to its Company Registration Shelf covering the resale of the Registrable Securities by the Investors (the "Prospectus"); provided, however, that the Company shall not be obligated to file more than one Prospectus pursuant to this Section 2.1(d) in any six month period to add additional Registrable Securities to the Company Registration Shelf that were acquired by the Investors other than directly from the Company or in an underwritten public offering by the Company. The Prospectus shall include the information required under Item 507 of Regulation S-K of the Securities Act, which information shall be provided by the Investors in accordance with Section 2.7. Notwithstanding the foregoing, before filing the Prospectus, the Company shall furnish to the Investors a copy of the Prospectus and afford the Investors an opportunity to review and comment on the Prospectus. The Company's obligation pursuant to this Section 2.1(d) is conditioned upon the Investors providing the information contemplated in Section 2.7.

(e) Deferral and Suspension. At any time after being obligated to file a Resale Registration Shelf or Prospectus, or after any Resale Registration Shelf has become effective or a Prospectus filed with the Commission, the Company may defer the filing of or suspend the use of any such Resale Registration Shelf or Prospectus, upon giving written notice of such action to the Investors with a certificate signed by the Principal Executive Officer of the Company stating that in the good faith judgment of the Board, the filing or use of any such Resale Registration Shelf or Prospectus covering the Registrable Securities would be seriously detrimental to the Company or its stockholders at such time and

that the Board concludes, as a result, that it is in the best interests of the Company and its stockholders to defer the filing or suspend the use of such Resale Registration Shelf or Prospectus at such time. The Company shall have the right to defer the filing of or suspend the use of such Resale Registration Shelf or Prospectus for a period of not more than one hundred twenty (120) days from the date the Company notifies the Investors of such deferral or suspension; provided that the Company shall not exercise the right contained in this Section 2.1(e) more than once in any twelve month period. In the case of the suspension of use of any effective Resale Registration Shelf or Prospectus, the Investors, immediately upon receipt of notice thereof from the Company, shall discontinue any offers or sales of Registrable Securities pursuant to such Resale Registration Shelf or Prospectus until advised in writing by the Company that the use of such Resale Registration Shelf or Prospectus may be resumed. In the case of a deferred Prospectus or Resale Registration Shelf filing, the Company shall provide prompt written notice to the Investors of (i) the Company's decision to file or seek effectiveness of the Prospectus or Resale Registration Shelf, as the case may be, following such deferral and (ii) in the case of a Resale Registration Shelf, the effectiveness of such Resale Registration Shelf. In the case of either a suspension of use of, or deferred filing of, any Resale Registration Shelf or Prospectus, the Company shall not, during the pendency of such suspension or deferral, be required to take any action hereunder (including any action pursuant to Section 2.2 hereof) with respect to the registration or sale of any Registrable Securities pursuant to any such Resale Registration Shelf, Company Registration Shelf or Prospectus.

(f) Other Securities. Subject to Section 2.2(e) below, any Resale Registration Shelf or Prospectus may include Other Securities, and may include securities of the Company being sold for the account of the Company; provided such Other Securities are excluded first from such Registration Statement in order to comply with any applicable laws or request from any Government Entity, Nasdaq or any applicable listing agency. For the avoidance of doubt, no Other Securities may be included in an underwritten offering pursuant to Section 2.2 without the consent of the Investors.

2.2. Sales and Underwritten Offerings of the Registrable Securities.

(a) Notwithstanding any provision contained herein to the contrary, the Investors, collectively, shall, subject to the limitations set forth in this Section 2.2, be permitted one underwritten public offering per calendar year, but no more than three underwritten public offerings in total, to effect the sale or distribution of Registrable Securities.

(b) If the Investors intend to effect an underwritten public offering pursuant to a Resale Registration Shelf or Company Registration Shelf to sell or otherwise distribute Registrable Securities, they shall so advise the Company and provide as much notice to the Company as reasonably practicable (and in any event not less than fifteen (15) business days prior to the Investors' request that the Company file a prospectus supplement to a Resale Registration Shelf or Company Registration Shelf).

(c) In connection with any offering initiated by the Investors pursuant to this Section 2.2 involving an underwriting of shares of Registrable Securities, the Investors shall be entitled to select the underwriter or underwriters for such offering, subject to the consent of the Company, such consent not to be unreasonably withheld, conditioned or delayed.

(d) In connection with any offering initiated by the Investors pursuant to this Section 2.2 involving an underwriting of shares of Registrable Securities, the Company shall not be required to include any of the Registrable Securities in such underwriting unless the Investors (i) enter into an underwriting agreement in customary form with the underwriter or underwriters, (ii) accept customary terms in such underwriting agreement with regard to representations and warranties relating to ownership of the Registrable Securities and authority and power to enter into such underwriting agreement and (iii) complete and execute all questionnaires, powers of attorney, custody agreements, indemnities and other

documents as may be requested by such underwriter or underwriters. Further, the Company shall not be required to include any of the Registrable Securities in such underwriting if (Y) the underwriting agreement proposed by the underwriter or underwriters contains representations, warranties or conditions that are not reasonable in light of the Company's then-current business or (Z) the underwriter, underwriters or the Investors require the Company to participate in any marketing, road show or comparable activity that may be required to complete the orderly sale of shares by the underwriter or underwriters.

(e) If the total amount of securities to be sold in any offering initiated by the Investors pursuant to this Section 2.2 involving an underwriting of shares of Registrable Securities exceeds the amount that the underwriters determine in their sole discretion is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities (subject in each case to the cutback provisions set forth in this Section 2.2(e)), that the underwriters and the Company determine in their sole discretion shall not jeopardize the success of the offering. If the underwritten public offering has been requested pursuant to Section 2.2(a) hereof, the number of shares that are entitled to be included in the registration and underwriting shall be allocated in the following manner: (a) first, shares of Company equity securities that the Company desires to include in such registration shall be excluded and (b) second, Registrable Securities requested to be included in such registration by the Investors shall be excluded. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round down the number of shares allocated to any of the Investors to the nearest 100 shares.

2.3. Fees and Expenses. Except as otherwise may be agreed upon between the Investors and the Company, all Registration Expenses incurred in connection with registrations pursuant to this Agreement shall be borne by the Company. All Selling Expenses relating to securities registered on behalf of the Investors shall be borne by the Investors.

2.4. Registration Procedures. In the case of each registration of Registrable Securities effected by the Company pursuant to Section 2.1 hereof, the Company shall keep the Investors advised as to the initiation of each such registration and as to the status thereof. The Company shall use its reasonable best efforts, within the limits set forth in this Section 2.4, to:

(a) prepare and file with the Commission such amendments and supplements to such Registration Statement and the prospectuses used in connection with such Registration Statement as may be necessary to keep such Registration Statement effective and current and comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such Registration Statement;

(b) furnish to the Investors such numbers of copies of a prospectus, including preliminary prospectuses, in conformity with the requirements of the Securities Act, and such other documents as the Investors may reasonably request in order to facilitate the disposition of Registrable Securities;

(c) use its reasonable best efforts to register and qualify the Registrable Securities covered by such Registration Statement under such other securities or blue sky laws of such jurisdictions in the United States as shall be reasonably requested by the Investors, provided that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions;

(d) in the event of any underwritten public offering, and subject to Section 2.2(d), enter into and perform its obligations under an underwriting agreement, in usual and customary form,with the managing underwriter of such offering and take such other usual and customary action as the Investors may reasonably request in order to facilitate the disposition of such Registrable Securities;

(e) notify the Investors at any time when a prospectus relating to a Registration Statement covering any Registrable Securities is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such Registration Statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing. The Company shall use its reasonable best efforts to amend or supplement such prospectus in order to cause such prospectus not to include any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing;

(f) provide a transfer agent and registrar for all Registrable Securities registered pursuant to such Registration Statement and, if required, a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(g) if requested by an Investor, use reasonable best efforts to cause the Company's transfer agent to remove any restrictive legend from any Registrable Securities being transferred by an Investor pursuant to a Resale Registration Shelf or Company Registration Shelf, within two business days following such request;

(h) cause to be furnished, at the request of the Investors, on the date that Registrable Securities are delivered to underwriters for sale in connection with an underwritten offering pursuant to this Agreement, (i) an opinion, dated such date, of the counsel representing the Company for the purposes of such registration, in form and substance as is customarily given to underwriters in an underwritten public offering, addressed to the underwriters, and (ii) a letter or letters from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to the underwriters; and

(i) cause all such Registrable Securities included in a Registration Statement pursuant to this Agreement to be listed on each securities exchange or other securities trading markets on which Common Stock is then listed.

2.5. The Investors Obligations.

(a) Discontinuance of Distribution. The Investors agree that, upon receipt of any notice from the Company of the occurrence of any event of the kind described in Section 2.4(e) hereof, the Investors shall immediately discontinue disposition of Registrable Securities pursuant to any Registration Statement covering such Registrable Securities until the Investors' receipt of the copies of the supplemented or amended prospectus contemplated by Section 2.4(e) hereof or receipt of notice that no supplement or amendment is required and that the Investors' disposition of the Registrable Securities may be resumed. The Company may provide appropriate stop orders to enforce the provisions of this Section 2.5(a).

(b) Compliance with Prospectus Delivery Requirements. The Investors covenant and agree that they shall comply with the prospectus delivery requirements of the Securities Act as applicable to them or an exemption therefrom in connection with sales of Registrable Securities pursuant to any Registration Statement filed by the Company pursuant to this Agreement.

(c) Notification of Sale of Registrable Securities. The Investors covenant and agree that they shall notify the Company following the sale of Registrable Securities to a third party as promptly as reasonably practicable, and in any event within thirty (30) days, following the sale of such Registrable Securities.

2.6. Indemnification.

(a) To the extent permitted by law, the Company shall indemnify the Investors, and, as applicable, their officers, directors, and constituent partners, legal counsel for each Investor and each Person controlling the Investors, with respect to which registration, related qualification, or related compliance of Registrable Securities has been effected pursuant to this Agreement, and each underwriter, if any, and each Person who controls any underwriter within the meaning of the Securities Act against all claims, losses, damages, or liabilities (or actions in respect thereof) to the extent such claims, losses, damages, or liabilities arise out of or are based upon (i) any untrue statement (or alleged untrue statement) of a material fact contained in any prospectus or other document (including any related Registration Statement) incident to any such registration, qualification, or compliance, or (ii) any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities law applicable to the Company and relating to action or inaction required of the Company in connection with any such registration, qualification, or compliance; and the Company shall pay as incurred to the Investors, each such underwriter, and each Person who controls the Investors or underwriter, any legal and any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability, or action; provided, however, that the indemnity contained in this Section 2.6(a) shall not apply to amounts paid in settlement of any such claim, loss, damage, liability, or action if settlement is effected without the consent of the Company (which consent shall not unreasonably be withheld); and provided, further, that the Company shall not be liable in any such case to the extent that any such claim, loss, damage, liability, or expense arises out of or is based upon any violation by such Investor of the obligations set forth in Section 2.5 hereof or any untrue statement or omission contained in such prospectus or other document based upon written information furnished to the Company by the Investors, such underwriter, or such controlling Person and stated to be for use therein.

(b) To the extent permitted by law, each Investor (severally and not jointly) shall, if Registrable Securities held by such Investor are included for sale in the registration and related qualification and compliance effected pursuant to this Agreement, indemnify the Company, each of its directors, each officer of the Company who signs the applicable Registration Statement, each legal counsel and each underwriter of the Company's securities covered by such a Registration Statement, each Person who controls the Company or such underwriter within the meaning of the Securities Act against all claims, losses, damages, and liabilities (or actions in respect thereof) arising out of or based upon (i) any untrue statement (or alleged untrue statement) of a material fact contained in any such Registration Statement, or related document, or (ii) any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by such Investor of Section 2.5 hereof, the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities law applicable to such Investor and relating to action or inaction required of such Investor in connection with any such registration and related qualification and compliance, and shall pay as incurred to such persons, any legal and any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability, or action, in each case only to the extent that such untrue statement (or alleged untrue statement) or omission (or alleged omission) is made in (and such violation pertains to) such Registration Statement or related

document in reliance upon and in conformity with written information furnished to the Company by such Investor and stated to be specifically for use therein; provided, however, that the indemnity contained in this Section 2.6(b) shall not apply to amounts paid in settlement of any such claim, loss, damage, liability, or action if settlement is effected without the consent of such Investor (which consent shall not unreasonably be withheld); provided, further, that such Investor's liability under this Section 2.6(b) (when combined with any amounts such Investor is liable for under Section 2.6(d)) shall not exceed such Investor's net proceeds from the offering of securities made in connection with such registration.

(c) Promptly after receipt by an indemnified party under this Section 2.6 of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against an indemnifying party under this Section 2.6, notify the indemnifying party in writing of the commencement thereof and generally summarize such action. The indemnifying party shall have the right to participate in and to assume the defense of such claim; provided, however, that the indemnifying party shall be entitled to select counsel for the defense of such claim with the approval of any parties entitled to indemnification, which approval shall not be unreasonably withheld; provided further, however, that if either party reasonably determines that there may be a conflict between the position of the Company and the Investors in conducting the defense of such action, suit, or proceeding by reason of recognized claims for indemnity under this Section 2.6, then counsel for such party shall be entitled to conduct the defense to the extent reasonably determined by such counsel to be necessary to protect the interest of such party. The failure to notify an indemnifying party promptly of the commencement of any such action, if prejudicial to the ability of the indemnifying party to defend such action, shall relieve such indemnifying party, to the extent so prejudiced, of any liability to the indemnified party under this Section 2.6, but the omission so to notify the indemnifying party shall not relieve such party of any liability that such party may have to any indemnified party otherwise than under this Section 2.6.

(d) If the indemnification provided for in this Section 2.6 is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any loss, liability, claim, damage, or expense referred to therein, then the indemnifying party, in lieu of indemnifying such indemnified party hereunder, shall contribute to the amount paid or payable by such indemnified party as a result of such loss, liability, claim, damage, or expense in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the statements or omissions that resulted in such loss, liability, claim, damage, or expense as well as any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission. In no event, however, shall (i) any amount due for contribution hereunder be in excess of the amount that would otherwise be due under Section 2.6(a) or Section 2.6(b), as applicable, based on the limitations of such provisions and (ii) a Person guilty of fraudulent misrepresentation (within the meaning of the Securities Act) be entitled to contribution from a Person who was not guilty of such fraudulent misrepresentation.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with an underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control; provided, however, that the failure of the underwriting agreement to provide for or address a matter provided for or addressed by the foregoing provisions shall not be a conflict between the underwriting agreement and the foregoing provisions.

(f) The obligations of the Company and the Investors under this Section 2.6 shall survive the completion of any offering of Registrable Securities in a Registration Statement under this Agreement or otherwise.

2.7. Information. The Investors shall furnish to the Company such information regarding the Investors and the distribution proposed by the Investors as the Company may reasonably request and as shall be reasonably required in connection with any registration referred to in this Agreement. The Investors agree to, as promptly as practicable (and in any event prior to any sales made pursuant to a prospectus), furnish to the Company all information required to be disclosed in order to make the information previously furnished to the Company by the Investors not misleading. The Investors agree to keep confidential the receipt of any notice received pursuant to Section 2.4(e) and the contents thereof, except as required pursuant to applicable law. Notwithstanding anything to the contrary herein, the Company shall be under no obligation to name the Investors in any Registration Statement if the Investors have not provided the information required by this Section 2.7 with respect to the Investors as a selling securityholder in such Registration Statement or any related prospectus.

2.8. Rule 144 Requirements. With a view to making available to the Investors the benefits of Rule 144 promulgated under the Securities Act and any other rule or regulation of the Commission that may at any time permit the Investors to sell Registrable Securities to the public without registration, the Company agrees to use its reasonable best efforts to:

(a) make and keep public information available, as those terms are understood and defined in Rule 144 under the Securities Act at all times after the date hereof;

(b) file with the Commission in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act;

(c) prior to the filing of the Registration Statement or any amendment thereto (whether pre-effective or post-effective), and prior to the filing of any prospectus or prospectus supplement related thereto, to provide the Investors with copies of all of the pages thereof (if any) that reference the Investors; and

(d) furnish to any Investor, so long as the Investor owns any Registrable Securities, forthwith upon request (i) a written statement by the Company that it has complied with the reporting requirements of Rule 144, (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested by an Investor in availing itself of any rule or regulation of the Commission which permits an Investor to sell any such securities without registration.

2.9. Termination of Status as Registrable Securities. The Registrable Securities shall cease to be Registrable Securities upon the earliest to occur of the following events: (i) such Registrable Securities have been sold pursuant to an effective Registration Statement; (ii) such Registrable Securities have been sold by the Investors pursuant to Rule 144 (or other similar rule), (iii) such Registrable Securities may be resold by the Investor holding such Registrable Securities without limitations as to volume or manner of sale pursuant to Rule 144; or (iv) ten (10) years after the date of this Agreement.

Section 4
Miscellaneous

3.1. Amendment. No amendment, alteration or modification of any of the provisions of this Agreement shall be binding unless made in writing and signed by each of the Company and the Investors.

3.2. Injunctive Relief. It is hereby agreed and acknowledged that it shall be impossible to measure in money the damages that would be suffered if the parties fail to comply with any of the obligations herein imposed on them and that in the event of any such failure, an aggrieved Person shall be irreparably damaged and shall not have an adequate remedy at law. Any such Person shall, therefore, be entitled (in addition to any other remedy to which it may be entitled in law or in equity) to injunctive relief, including, without limitation, specific performance, to enforce such obligations, and if any action should be brought in equity to enforce any of the provisions of this Agreement, none of the parties hereto shall raise the defense that there is an adequate remedy at law.

3.3. Notices. All notices required or permitted under this Agreement must be in writing and sent to the address or facsimile number identified below. Notices must be given: (a) by personal delivery, with receipt acknowledged; (b) by facsimile followed by hard copy delivered by the methods under clause (c) or (d); (c) by prepaid certified or registered mail, return receipt requested; or (d) by prepaid reputable overnight delivery service. Notices shall be effective upon receipt. Either party may change its notice address by providing the other party written notice of such change. Notices shall be delivered as follows:

If to the Investors: At such Investor's address as set forth on Schedule A hereto.

If to the Company: Four Tower Bridge
200 Barr Harbor Drive, Suite 200
West Conshohocken, Pennsylvania 19428 Attention: General Counsel

3.4. Governing Law; Jurisdiction; Venue; Jury Trial.

(a) This Agreement shall be governed by, and construed in accordance with, the law of the State of New York without giving effect to any choice or conflict of law provision or rule (whether of the State of New York or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of New York.

(b) Each of the Company and the Investors irrevocably and unconditionally submits, for itself and its property, to the nonexclusive jurisdiction of the courts of the State of New York sitting in the Borough of Manhattan, New York and of the United States District Court of the Southern District of New York, and any appellate court from any thereof, in any action or proceeding arising out of or relating to this Agreement and the transactions contemplated herein, or for recognition or enforcement of any judgment, and each of the Company and the Investors irrevocably and unconditionally agrees that all claims in respect of any such action or proceeding may be heard and determined in such New York state court or, to the fullest extent permitted by applicable law, in such federal court. Each of the Company and the Investors hereto agrees that a final judgment in any such action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law.

(c) Each of the Company and the Investors irrevocably and unconditionally waives, to the fullest extent permitted by applicable law, any objection that it may now or hereafter have to the laying of venue of any action or proceeding arising out of or relating to this Agreement and the transactions contemplated herein in any court referred to in Section 3.4(b) hereof. Each of the Company and the Investors hereby irrevocably waives, to the fullest extent permitted by applicable law, the defense of an inconvenient forum to the maintenance of such action or proceeding in any such court.

(d) EACH OF THE COMPANY AND THE INVESTORS HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH OF THE COMPANY AND THE INVESTORS (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PERSON HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PERSON WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT EACH OF THE COMPANY AND THE INVESTORS HAS BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

3.5. Successors, Assigns and Transferees. Any and all rights, duties and obligations hereunder shall not be assigned, transferred, delegated or sublicensed by any party hereto without the prior written consent of the other party; provided, however, that the Investors shall be entitled to transfer Registrable Securities to one or more of their affiliates and, solely in connection therewith, may assign their rights hereunder in respect of such transferred Registrable Securities, in each case, so long as such Investor is not relieved of any liability or obligations hereunder, without the prior consent of the Company. Any transfer or assignment made other than as provided in the first sentence of this Section 3.5 shall be null and void. Subject to the foregoing and except as otherwise provided herein, the provisions of this Agreement shall inure to the benefit of, and be binding upon, the successors, permitted assigns, heirs, executors and administrators of the parties hereto.

3.6. Entire Agreement. This Agreement, together with any exhibits hereto, constitute the entire agreement between the parties relating to the subject matter hereof and all previous agreements or arrangements between the parties, written or oral, relating to the subject matter hereof are superseded.

3.7. Waiver. No failure on the part of either party hereto to exercise any power, right, privilege or remedy under this Agreement, and no delay on the part of either party hereto in exercising any power, right, privilege or remedy under this Agreement, shall operate as a waiver thereof; and no single or partial exercise of any such power, right, privilege or remedy shall preclude any other or further exercise thereof or of any other power, right, privilege or remedy.

3.8. Severability. If any part of this Agreement is declared invalid or unenforceable by any court of competent jurisdiction, such declaration shall not affect the remainder of the Agreement and the invalidated provision shall be revised in a manner that shall render such provision valid while preserving the parties' original intent to the maximum extent possible.

3.9. Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement. All references in this Agreement to sections, paragraphs and exhibits shall, unless otherwise provided, refer to sections and paragraphs hereof and exhibits attached hereto.

3.10. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be enforceable against the parties that execute such counterparts (including by facsimile or other electronic means), and all of which together shall constitute one instrument.

3.11. Term and Termination. The Investors' rights to demand the registration of the Registrable Securities under this Agreement, as well as the Company's obligations under Section 2.2 hereof, shall terminate automatically once all Registrable Securities cease to be Registrable Securities pursuant to the terms of Section 2.9 of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Registration Rights Agreement effective as of the day, month and year first above written.

MADRIGAL PHARMACEUTICALS, INC.
a Delaware Corporation

By: _____
Name: Brian J. Lynch
Title: Senior Vice President and General Counsel

[Signature Page to Registration Rights Agreement]

667, L.P.

BY: BAKER BROS. ADVISORS LP, management company and investment adviser to 667, L.P., pursuant to authority granted to it by Baker Biotech Capital, L.P., general partner to 667, L.P., and not as the general partner.

By: _____
Name: Scott Lessing
Title President

BAKER BROTHERS LIFE SCIENCES, L.P.

By: BAKER BROS. ADVISORS LP, management company and investment adviser to Baker Brothers Life Sciences, L.P., pursuant to authority granted to it by Baker Brothers Life Sciences Capital, L.P., general partner to Baker Brothers Life Sciences, L.P., and not as the general partner.

By: _____
Name: Scott Lessing
Title President

Schedule A

The Investors

667, L.P.
Baker Brothers Life Sciences, L.P.

To the above Investors:

Baker Bros. Advisors LP
860 Washington St. 3d Floor
New York, N.Y. 10014
Attention: Scott Lessing, President

Exhibit 10.3

MADRIGAL PHARMACEUTICALS, INC.
AMENDED 2015 STOCK PLAN
RESTRICTED STOCK UNIT AWARD
GRANT NOTICE

1. **Name of Participant:** _____

2. **Grant Date of the RSUs (the "Grant Date"):** _____

3. **Number of RSUs:** _____

4. **Vesting of Award:** Subject to the Participant's continuous employment or other service relationship with or to the Company or any of its Affiliates as an Employee, director, and/or Consultant from the Grant Date through the first anniversary of the Grant Date (the "**Vesting Date**"), the RSUs shall become 100 percent (100%) vested on such Vesting Date. Any terms used and not defined herein have the meanings ascribed to such terms in the Madrigal Pharmaceuticals, Inc. Amended 2015 Stock Plan (as it has been and may be amended and/or restated from time to time, the "**Plan**").

By signing this Grant Notice or by electronic acknowledgment of this Grant Notice, the Participant acknowledges receipt of and agrees to all the terms and conditions described in this Restricted Stock Unit Award Grant Notice, the attached Restricted Stock Unit Agreement, and the Plan. The Participant acknowledges that he or she has carefully reviewed the Plan and agrees that the Plan will control in the event any provision of the Agreement should appear to be inconsistent with the Plan.

MADRIGAL PHARMACEUTICALS, INC.

By: _____
Name: _____
Title: _____

_____
PARTICIPANT

ATTACHMENT: Restricted Stock Unit Agreement

MADRIGAL PHARMACEUTICALS, INC.
AMENDED 2015 STOCK PLAN
RESTRICTED STOCK UNIT AGREEMENT

This RESTRICTED STOCK UNIT AGREEMENT (the "**Agreement**") is made as of the "Grant Date" set forth in the Restricted Stock Unit Award Grant Notice ("**Grant Notice**") between MADRIGAL PHARMACEUTICALS, INC. (the "**Company**"), a Delaware corporation, and the individual whose name appears on the Restricted Stock Unit Award Grant Notice (the "**Participant**").

WHEREAS, the Company has adopted the Madrigal Pharmaceuticals, Inc. Amended 2015 Stock Plan (as it has been and may be amended and/or restated from time to time, the "**Plan**") to promote the interests of the Company by providing an incentive for Employees, directors, and Consultants of the Company and its Affiliates;

WHEREAS, pursuant to the provisions of the Plan, and in consideration for the Participant's past and future services to the Company, the Company desires to grant to the Participant restricted stock units ("**RSUs**") related to the Company's common stock, $0.0001 par value per share ("**Common Stock**"), in accordance with the provisions of the Plan, all on the terms and conditions hereinafter set forth; and

WHEREAS, the Company and the Participant understand and agree that any terms used and not defined herein have the meanings ascribed to such terms in the Plan.

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Grant of Award. The Company hereby grants to the Participant a Stock-Based Award for the number of RSUs set forth in the Grant Notice (the "**Award**"). Each RSU represents a contingent entitlement of the Participant to receive one share of Common Stock, on the terms and conditions and subject to all the limitations set forth herein, in the Grant Notice, and in the Plan, which are incorporated herein by reference.

2. Vesting of Award.

    a. Subject to the terms and conditions set forth in this Agreement and the Plan: (i) the Award shall vest as set forth in the Grant Notice and is subject to the other terms and conditions of this Agreement and the Plan; and (ii) upon vesting, the Participant shall be entitled to receive such number of shares of Common Stock equivalent to the number of such vested RSUs.

b. Notwithstanding anything to the contrary in the Grant Notice or this Agreement, any fractional Shares resulting from the vesting schedule set forth in the Grant Notice will be rounded to the nearest whole Share and shall be rounded up or down as necessary as of the last Vesting Date; provided, in all cases, the Participant cannot vest in more than the number of RSUs set forth in the Grant Notice.

3. Forfeiture of Unvested RSUs.

a. Except as otherwise set forth in this Agreement, the Grant Notice, the Plan, or a separate agreement between Participant and the Company, if the Participant ceases his or her continuous employment or other service relationship with or to the Company or any of its Affiliates as an Employee, director, and/or Consultant ("**Termination**"), then all then-unvested RSUs shall automatically and immediately be forfeited to the Company as of such Termination, and this Agreement and the Grant Notice shall automatically and immediately terminate and be of no further force or effect.

b. For purposes of this Agreement, the Participant's continuous employment or other service relationship with or to the Company or any of its Affiliates as an Employee, director, and/or Consultant does not terminate when the Participant goes on a bona fide leave of absence that was approved by the Administrator in writing, if the terms of the leave provide for continued service crediting, or when continued service crediting is required by applicable law. The Participant's continuous employment or other service relationship with or to the Company or any of its Affiliates as an Employee, director, and/or Consultant terminates in any event when the approved leave ends unless the Participant immediately returns to active work. The Administrator may determine, in its discretion, which leaves count for this purpose and when the Participant's continuous employment or other service relationship with or to the Company or any of its Affiliates as an Employee, director, and/or Consultant terminates for all purposes under the Plan in accordance with the provisions of the Plan.

4. Delivery of Award; Evidence of Issuance. Delivery of the Shares represented by the Participant's vested RSUs shall be made as soon as practicable after the applicable Vesting Date and, in any event, by no later than sixty (60) days following each applicable Vesting Date. The issuance of the Shares represented by the Participant's vested RSUs shall be evidenced in such a manner as the Administrator, in its discretion, deems appropriate, including, without limitation, by (i) book-entry registration or (ii) issuance of one or more share certificates.

5. Prohibitions on Transfer and Sale. This Award (including any additional RSUs received by the Participant as a result of stock dividends, stock splits, or any other similar transaction affecting the Company's securities without receipt of consideration) shall not be transferable, without the prior approval of the Administrator, by the Participant, by the Participant, other than by will or by the laws of descent and distribution. Except as provided in the previous sentence, the Shares to be issued pursuant to this Agreement shall be issued, during the Participant's lifetime, only to the Participant (or, in the event of legal incapacity or incompetence, to the Participant's guardian or representative), and this Award shall not be assigned, pledged, or hypothecated in any way (whether by operation of law or otherwise) and shall not be subject to execution, attachment, or similar process. Any attempted transfer, assignment, pledge, hypothecation, or other disposition of this Award or of any rights granted hereunder contrary to the provisions of this Section 5, or the levy of any attachment or similar process upon this Award, shall be null and void.

6. Adjustments. The Plan contains provisions covering the treatment of RSUs and Shares in a number of contingencies, such as stock splits and Corporate Transactions. Provisions in the Plan for adjustment with respect to this Award and the related provisions with respect to successors to the business of the Company are hereby made applicable hereunder and are incorporated herein by reference.

7. Securities Law Compliance. The Participant specifically acknowledges and agrees that any sales of Shares shall be made in accordance with the requirements of the Securities Act. The Company currently has an effective registration statement on file with the United States Securities and Exchange Commission with respect to the Shares to be granted hereunder. Despite registration, applicable securities laws may restrict the ability of the Participant to sell his or her Shares, including due to the Participant's affiliation with the Company. The Company shall not be obligated to either issue the Shares or permit the resale of any Shares if such issuance or resale would violate any applicable securities law, rule, or regulation.

8. Rights as a Stockholder. The Participant shall have no rights as a stockholder, including voting and dividend rights, with respect to the RSUs subject to this Agreement, unless and until Shares represented by the Participant's vested RSUs have been issued to the Participant and either a certificate evidencing the Shares has been issued or an appropriate entry has been made on the Company's books. No adjustments to Shares represented by the Participant's vested RSUs shall be made for dividends, distributions, or other rights on or with respect to the Common Stock generally if the applicable record date for any such dividend, distribution, or right occurs before the Participant's certificate is issued or an appropriate book entry is made, except as otherwise described in the Plan.

9. Incorporation of the Plan; Clawback. The Participant specifically understands and agrees that the RSUs and the Shares to be issued under the Agreement will be issued to the Participant pursuant to the Plan, a copy of which Plan the Participant acknowledges he or she has received, has read, and understands and by which Plan he or she agrees to be

bound. The provisions of the Plan are incorporated herein by reference. In addition, the RSUs (and any compensation paid or Shares issued pursuant to this Agreement) is subject to recoupment in accordance with The Sarbanes-Oxley Act, The Dodd-Frank Wall Street Reform and Consumer Protection Act and any implementing regulations thereunder, any clawback policy adopted by the Company, and any compensation recovery policy otherwise required by applicable law. No recovery of compensation under such a clawback policy will be an event giving rise to a right to resign for "good reason" or for a "constructive termination" (or similar terms) under any agreement between the Participant and the Company or any Affiliate.

10. Tax Liability of the Participant and Payment of Taxes. The Participant acknowledges and agrees that any income or other taxes due from the Participant with respect to this Award or the Shares to be issued pursuant to this Agreement or otherwise sold shall be the Participant's responsibility. In the event that the Company or an Affiliate determines that any federal, state, local, or foreign tax or withholding payment is required relating to the RSUs, or the delivery of Shares with respect to this Award, the Company or any Affiliate, subject to the proviso below, will have the right to withhold the delivery of vested Shares otherwise deliverable under this Agreement to meet such obligations, provided that, to the extent required to avoid adverse accounting consequences to the Company, the Shares so withheld will have an aggregate Fair Market Value not exceeding the minimum amount of tax required to be withheld by applicable laws and fractional Shares will not be retained to satisfy any portion of the Company's withholding obligation (such process, "**Net Settlement**"); provided, however, the Administrator shall have the discretion to override Net Settlement, (i) provided ninety (90) days' advance notice is given prior to a Vesting Date from the Company to the Participant, in which case such withholding shall be through a "same day sale" commitment with a broker-dealer that is a member of the Financial Industry Regulatory Authority (a "**FINRA Dealer**"), whereby the Participant irrevocably elects to sell a portion of the Shares to be delivered in connection with the RSUs to satisfy withholding obligations and whereby the FINRA Dealer irrevocably commits to forward the proceeds necessary to satisfy the withholding obligations directly to the Company or any Affiliate ("**Sell to Cover**") or (ii)(A) in lieu of withholding (under Net Settlement) or selling (under Sell to Cover) a fractional vested Share or (B) in connection with withholding obligations arising outside the ordinary course, such as outside annual Vesting Dates of the RSUs, and in each case under (A) or (B) such withholding may be through deduction from payments of any kind otherwise due to the Participant.

The Participant hereby (i) agrees that the Company or any Affiliate shall be entitled to use the foregoing methods to recover such taxes and (ii) acknowledges that, absent further action by the Administrator, in the event that the Company or an Affiliate determines that any federal, state, local, or foreign tax or withholding payment is required relating to the RSUs, or the delivery of Shares with respect to this Award, the Company or any Affiliate will utilize Net Settlement.

The Participant further agrees that the Administrator may, as it reasonably considers necessary, amend or vary this Agreement due to changes in tax laws to facilitate such recovery of taxes.

11. Participant Acknowledgements and Authorizations. The Participant hereby acknowledges the following:

    a. Neither the Company nor any Affiliate is, by the Plan or this Award, obligated to continue the Participant as an Employee, director, or Consultant of the Company or an Affiliate. Unless otherwise specified in a written employment or other written compensatory agreement between the Participant and the Company or an Affiliate, the Company or any Affiliate, as applicable, reserves the right to terminate the Participant's employment or other service relationship with the Company or an Affiliate at any time and for any reason.

    b. The Plan is discretionary in nature and may be suspended or terminated by the Company at any time.

    c. The grant of this Award is considered a one-time benefit and does not create a contractual or other right to receive any other award under the Plan, benefits in lieu of awards, or any other benefits in the future.

    d. The Plan is a voluntary program of the Company and future awards, if any, will be at the sole discretion of the Company, including, but not limited to, the timing of any grant, the amount of any award, vesting provisions, and the purchase price, if any.

    e. The Participant (i) authorizes the Company and each Affiliate and any agent of the Company or any Affiliate administering the Plan or providing Plan recordkeeping services to disclose to the Company or any of its Affiliates such information and data as the Company or any such Affiliate shall request in order to facilitate the grant of the Award and the administration of the Plan; and (ii) authorizes the Company and each Affiliate to store and transmit such information in electronic form for the purposes set forth in this Agreement.

    f. The obligation of the Company to deliver Shares pursuant to this Award constitutes an unfunded and unsecured obligation of the Company. Until Shares are delivered, the Participant shall have no rights under this Agreement or the Plan, other than those of a general unsecured creditor of the Company. No assets of the Company shall be set aside for the settlement of the RSUs.

12. Notices. By accepting the Award, the Participant agrees that notices may be given to the Participant in writing either at the Participant's home or mailing address as shown in the records of the Company or an Affiliate or by electronic transmission (including e-mail or reference to a website or other URL) sent to the Participant through the normal process employed by the Company or the Affiliate, as applicable, for communicating electronically with its employees or other service providers.

13. Assignment and Successors.

    a. This Agreement is personal to the Participant and, without the prior approval of the Administrator, shall not be assignable by the Participant, other than by will or the laws of descent and distribution. This Agreement shall inure to the benefit of and be enforceable by the Participant's legal representatives and beneficiaries.

    b. This Agreement shall inure to the benefit of and be binding upon the Company and its successors and assigns.

14. Governing Law. This Agreement shall be construed and enforced in accordance with the laws of the State of Delaware, without giving effect to the conflict of law principles thereof. For the purpose of litigating any dispute that arises under this Agreement, whether at law or in equity, the parties hereby consent to exclusive jurisdiction in the Commonwealth of Pennsylvania and agree that such litigation shall be conducted in the state courts of the Commonwealth of Pennsylvania or the federal courts of the United States for the Eastern District of Pennsylvania.

15. Severability. If any provision of this Agreement is held to be invalid or unenforceable by a court of competent jurisdiction, then such provision or provisions shall be modified to the extent necessary to make such provision valid and enforceable, and to the extent that this is impossible, then such provision shall be deemed to be excised from this Agreement, and the validity, legality, and enforceability of the rest of this Agreement shall not be affected thereby.

16. Entire Agreement. This Agreement, together with the Grant Notice and the Plan, constitutes the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof, including without limitation any offer letter provision related to the subject matter hereof. No statement, representation, warranty, covenant, or agreement not expressly set forth in this Agreement shall affect or be used to interpret, change, or restrict the express terms and provisions of this Agreement; provided, however, in any event, this Agreement shall be subject to and governed by the Plan.

17. Modifications and Amendments; Waivers and Consents. The terms and provisions of this Agreement may be modified or amended as provided in the Plan. Except as provided in the Plan, the terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent.

18. Code Section 409A. The Award of RSUs evidenced by this Agreement is intended to be exempt from the nonqualified deferred compensation rules of Code Section 409A as a "short-term deferral" within the meaning of Code Section 409A and, to the maximum extent permitted, shall be construed accordingly. Notwithstanding anything to the contrary in the Plan or this Agreement, none of the Company, its Affiliates, the Board of Directors, the Administrator, or any of their respective agents or delegates will have any obligation to take any action to prevent the assessment of any excise tax or penalty on the Participant under Code Section 409A, and none of the Company, its Affiliates, the Board of Directors, the Administrator, or any of their respective agents or delegates will have any liability to the Participant or any other person for such tax or penalty.

    To the extent that the RSUs constitute "deferred compensation" under Code Section 409A, a termination of Service occurs only upon an event that would be a "separation from service" within the meaning of Code Section 409A. If, at the time of the Participant's "separation from service," (i) the Participant is a "specified employee" within the meaning of Code Section 409A (and as applied according to procedures of the Company and its Affiliates), and (ii) the Administrator makes a good faith determination that an amount payable under this Agreement on account of the Participant's separation from service constitutes deferred compensation (within the meaning of Code Section 409A), the payment of which is required to be delayed pursuant to the six (6)-month delay rule set forth in Code Section 409A to avoid taxes or penalties under Code Section 409A (the "**Delay Period**"), then the Company will not pay such amount on the otherwise scheduled payment date but will instead pay it in a lump sum on the first business day after the Delay Period (or upon the Participant's death, if earlier), without interest. Each installment of RSUs that vest under this Agreement (if there is more than one installment) will be considered one of a series of separate payments for purposes of Code Section 409A.

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Exhibit 10.4

Section 16 Officer Form

MADRIGAL PHARMACEUTICALS, INC.
AMENDED 2015 STOCK PLAN
RESTRICTED STOCK UNIT AWARD
GRANT NOTICE

1. **Name of Participant:** _____

2. **Grant Date of the RSUs (the "Grant Date"):** _____

3. **Number of RSUs:** _____

4. **Vesting of Award:** Subject to the Participant's continuous employment or other service relationship with or to the Company or any of its Affiliates as an Employee, director, and/or Consultant from the Grant Date through each of the following applicable dates (each such date, a "**Vesting Date**"), the RSUs shall vest twenty-five percent (25%) of the Number of RSUs above on each of the first, second, third, and fourth anniversaries of the Grant Date. Any terms used and not defined herein have the meanings ascribed to such terms in the Madrigal Pharmaceuticals, Inc. Amended 2015 Stock Plan (as it has been and may be amended and/or restated from time to time, the "**Plan**").

By signing this Grant Notice or by electronic acknowledgment of this Grant Notice, the Participant acknowledges receipt of and agrees to all the terms and conditions described in this Restricted Stock Unit Award Grant Notice, the attached Restricted Stock Unit Agreement (including the Restrictive Covenants Agreement attached thereto), and the Plan. The Participant acknowledges that he or she has carefully reviewed the Plan and agrees that the Plan will control in the event any provision of the Agreement should appear to be inconsistent with the Plan.

MADRIGAL PHARMACEUTICALS, INC.

By: _____
Name: _____
Title: _____

_____
PARTICIPANT

ATTACHMENT: Restricted Stock Unit Agreement & Restrictive Covenants Agreement

MADRIGAL PHARMACEUTICALS, INC.
AMENDED 2015 STOCK PLAN
RESTRICTED STOCK UNIT AGREEMENT

This RESTRICTED STOCK UNIT AGREEMENT (the "**Agreement**") is made as of the "Grant Date" set forth in the Restricted Stock Unit Award Grant Notice ("**Grant Notice**") between MADRIGAL PHARMACEUTICALS, INC. (the "**Company**"), a Delaware corporation, and the individual whose name appears on the Restricted Stock Unit Award Grant Notice (the "**Participant**").

WHEREAS, the Company has adopted the Madrigal Pharmaceuticals, Inc. Amended 2015 Stock Plan (as it has been and may be amended and/or restated from time to time, the "**Plan**") to promote the interests of the Company by providing an incentive for Employees, directors, and Consultants of the Company and its Affiliates;

WHEREAS, pursuant to the provisions of the Plan, and in consideration for the Participant's past and future services to the Company and for compliance with certain Restrictive Covenants Agreement (as defined below) restrictions set forth herein, the Company desires to grant to the Participant restricted stock units ("**RSUs**") related to the Company's common stock, $0.0001 par value per share ("**Common Stock**"), in accordance with the provisions of the Plan, all on the terms and conditions hereinafter set forth; and

WHEREAS, the Company and the Participant understand and agree that any terms used and not defined herein have the meanings ascribed to such terms in the Plan.

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Grant of Award. The Company hereby grants to the Participant a Stock-Based Award for the number of RSUs set forth in the Grant Notice (the "**Award**"). Each RSU represents a contingent entitlement of the Participant to receive one share of Common Stock, on the terms and conditions and subject to all the limitations set forth herein, in the Grant Notice, and in the Plan, which are incorporated herein by reference.

2. Vesting of Award.

    a. Subject to the terms and conditions set forth in this Agreement and the Plan: (i) the Award shall vest as set forth in the Grant Notice and is subject to the other terms and conditions of this Agreement and the Plan; and (ii) upon vesting, the Participant shall be entitled to receive such number of shares of Common Stock equivalent to the number of such vested RSUs.

b. Notwithstanding anything to the contrary in the Grant Notice or this Agreement, any fractional Shares resulting from the vesting schedule set forth in the Grant Notice will be rounded to the nearest whole Share and shall be rounded up or down as necessary as of the last Vesting Date; provided, in all cases, the Participant cannot vest in more than the number of RSUs set forth in the Grant Notice.

3. Forfeiture of Unvested RSUs.

a. Except as otherwise set forth in this Agreement, the Grant Notice, the Plan, or a separate agreement between Participant and the Company, if the Participant ceases his or her continuous employment or other service relationship with or to the Company or any of its Affiliates as an Employee, director, and/or Consultant ("**Termination**"), then all then-unvested RSUs shall automatically and immediately be forfeited to the Company as of such Termination, and this Agreement and the Grant Notice shall automatically and immediately terminate and be of no further force or effect.

b. For purposes of this Agreement, the Participant's continuous employment or other service relationship with or to the Company or any of its Affiliates as an Employee, director, and/or Consultant does not terminate when the Participant goes on a bona fide leave of absence that was approved by the Administrator in writing, if the terms of the leave provide for continued service crediting, or when continued service crediting is required by applicable law. The Participant's continuous employment or other service relationship with or to the Company or any of its Affiliates as an Employee, director, and/or Consultant terminates in any event when the approved leave ends unless the Participant immediately returns to active work. The Administrator may determine, in its discretion, which leaves count for this purpose and when the Participant's continuous employment or other service relationship with or to the Company or any of its Affiliates as an Employee, director, and/or Consultant terminates for all purposes under the Plan in accordance with the provisions of the Plan.

c. This Award is expressly granted as consideration for the Participant's agreement to comply with the Confidentiality and Inventions and Restrictive Covenants Agreement attached as Exhibit A hereto (the "**Restrictive Covenants Agreement**"). Therefore, notwithstanding anything to the contrary contained in this Agreement, in the event that the Participant materially breaches the terms of the Restrictive Covenants Agreement, all of the Unvested RSUs then held by the Participant and all Common Stock issued upon the vesting of RSUs that are outstanding and held by the Participant shall be forfeited to the Company immediately upon written notice by the Company. No other awards granted to the Participant under the Plan shall be subject to the forfeiture and repayment obligation set forth in this Section 3.c unless they expressly provide for such obligation.

4. Delivery of Award; Evidence of Issuance. Delivery of the Shares represented by the Participant's vested RSUs shall be made as soon as practicable after the applicable Vesting Date and, in any event, by no later than sixty (60) days following each applicable Vesting Date. The issuance of the Shares represented by the Participant's vested RSUs shall be evidenced in such a manner as the Administrator, in its discretion, deems appropriate, including, without limitation, by (i) book-entry registration or (ii) issuance of one or more share certificates.

5. Prohibitions on Transfer and Sale. This Award (including any additional RSUs received by the Participant as a result of stock dividends, stock splits, or any other similar transaction affecting the Company's securities without receipt of consideration) shall not be transferable, without the prior approval of the Administrator, by the Participant, other than by will or by the laws of descent and distribution. Except as provided in the previous sentence, the Shares to be issued pursuant to this Agreement shall be issued, during the Participant's lifetime, only to the Participant (or, in the event of legal incapacity or incompetence, to the Participant's guardian or representative), and this Award shall not be assigned, pledged, or hypothecated in any way (whether by operation of law or otherwise) and shall not be subject to execution, attachment, or similar process. Any attempted transfer, assignment, pledge, hypothecation, or other disposition of this Award or of any rights granted hereunder contrary to the provisions of this Section 5, or the levy of any attachment or similar process upon this Award, shall be null and void.

6. Adjustments. The Plan contains provisions covering the treatment of RSUs and Shares in a number of contingencies, such as stock splits and Corporate Transactions. Provisions in the Plan for adjustment with respect to this Award and the related provisions with respect to successors to the business of the Company are hereby made applicable hereunder and are incorporated herein by reference.

7. Securities Law Compliance. The Participant specifically acknowledges and agrees that any sales of Shares shall be made in accordance with the requirements of the Securities Act. The Company currently has an effective registration statement on file with the United States Securities and Exchange Commission with respect to the Shares to be granted hereunder. Despite registration, applicable securities laws may restrict the ability of the Participant to sell his or her Shares, including due to the Participant's affiliation with the Company. The Company shall not be obligated to either issue the Shares or permit the resale of any Shares if such issuance or resale would violate any applicable securities law, rule, or regulation.

8. Rights as a Stockholder. The Participant shall have no rights as a stockholder, including voting and dividend rights, with respect to the RSUs subject to this Agreement, unless and until Shares represented by the Participant's vested RSUs have been issued to the Participant and either a certificate evidencing the Shares has been issued or an appropriate entry has been made on the Company's books. No adjustments to Shares represented by the Participant's vested RSUs shall be made for dividends, distributions, or other rights on or with respect to the Common Stock generally if the applicable record date for any such dividend, distribution, or right occurs before the Participant's certificate is issued or an appropriate book entry is made, except as otherwise described in the Plan.

9. Incorporation of the Plan; Clawback. The Participant specifically understands and agrees that the RSUs and the Shares to be issued under the Agreement will be issued to the Participant pursuant to the Plan, a copy of which Plan the Participant acknowledges he or she has received, has read, and understands and by which Plan he or she agrees to be bound. The provisions of the Plan are incorporated herein by reference. In addition, the RSUs (and any compensation paid or Shares issued pursuant to this Agreement) are subject to recoupment in accordance with The Sarbanes-Oxley Act, The Dodd-Frank Wall Street Reform and Consumer Protection Act and any implementing regulations thereunder, any clawback policy adopted by the Company, and any compensation recovery policy otherwise required by applicable law. No recovery of compensation under such a clawback policy will be an event giving rise to a right to resign for "good reason" or for a "constructive termination" (or similar terms) under any agreement between the Participant and the Company or any Affiliate.

10. Tax Liability of the Participant and Payment of Taxes. The Participant acknowledges and agrees that any income or other taxes due from the Participant with respect to this Award or the Shares to be issued pursuant to this Agreement or otherwise sold shall be the Participant's responsibility. In the event that the Company or an Affiliate determines that any federal, state, local, or foreign tax or withholding payment is required relating to the RSUs, or the delivery of Shares with respect to this Award, the Company or any Affiliate, subject to the proviso below, will have the right to withhold the delivery of vested Shares otherwise deliverable under this Agreement to meet such obligations, provided that, to the extent required to avoid adverse accounting consequences to the Company, the Shares so withheld will have an aggregate Fair Market Value not exceeding the minimum amount of tax required to be withheld by applicable laws and fractional Shares will not be retained to satisfy any portion of the Company's withholding obligation (such process, "**Net Settlement**"); provided, however, the Administrator shall have the discretion to override Net Settlement, (i) provided ninety (90) days' advance notice is given prior to a Vesting Date from the Company to the Participant, in which case such withholding shall be through a "same day sale" commitment with a broker-dealer that is a member of the Financial Industry Regulatory Authority (a "**FINRA Dealer**"), whereby the Participant irrevocably

elects to sell a portion of the Shares to be delivered in connection with the RSUs to satisfy withholding obligations and whereby the FINRA Dealer irrevocably commits to forward the proceeds necessary to satisfy the withholding obligations directly to the Company or any Affiliate ("**Sell to Cover**") or (ii)(A) in lieu of withholding (under Net Settlement) or selling (under Sell to Cover) a fractional vested Share or (B) in connection with withholding obligations arising outside the ordinary course, such as outside annual Vesting Dates of the RSUs, and in each case under (A) or (B) such withholding may be through deduction from payments of any kind otherwise due to the Participant.

The Participant hereby (i) agrees that the Company or any Affiliate shall be entitled to use the foregoing methods to recover such taxes and (ii) acknowledges that, absent further action by the Administrator, in the event that the Company or an Affiliate determines that any federal, state, local, or foreign tax or withholding payment is required relating to the RSUs, or the delivery of Shares with respect to this Award, the Company or any Affiliate will utilize Net Settlement.

The Participant further agrees that the Administrator may, as it reasonably considers necessary, amend or vary this Agreement due to changes in tax laws to facilitate such recovery of taxes.

11. Participant Acknowledgements and Authorizations. The Participant hereby acknowledges the following:

    a. Neither the Company nor any Affiliate is, by the Plan or this Award, obligated to continue the Participant as an Employee, director, or Consultant of the Company or an Affiliate. Unless otherwise specified in a written employment or other written compensatory agreement between the Participant and the Company or an Affiliate, the Company or any Affiliate, as applicable, reserves the right to terminate the Participant's employment or other service relationship with the Company or an Affiliate at any time and for any reason.

    b. The Plan is discretionary in nature and may be suspended or terminated by the Company at any time.

    c. The grant of this Award is considered a one-time benefit and does not create a contractual or other right to receive any other award under the Plan, benefits in lieu of awards, or any other benefits in the future.

    d. The Plan is a voluntary program of the Company and future awards, if any, will be at the sole discretion of the Company, including, but not limited to, the timing of any grant, the amount of any award, vesting provisions, and the purchase price, if any.

e. The value of this Award is an extraordinary item of compensation outside of the scope of the Participant's employment or consulting contract, agreement, or arrangement. As such, the Award is not part of normal or expected compensation for purposes of calculating any severance, resignation, redundancy, end of service payments, bonuses, long-service awards, pension or retirement benefits, or similar payments. The future value of the shares of Common Stock is unknown and cannot be predicted with certainty.

f. The Participant (i) authorizes the Company and each Affiliate and any agent of the Company or any Affiliate administering the Plan or providing Plan recordkeeping services to disclose to the Company or any of its Affiliates such information and data as the Company or any such Affiliate shall request in order to facilitate the grant of the Award and the administration of the Plan; and (ii) authorizes the Company and each Affiliate to store and transmit such information in electronic form for the purposes set forth in this Agreement.

g. The obligation of the Company to deliver Shares pursuant to this Award constitutes an unfunded and unsecured obligation of the Company. Until Shares are delivered, the Participant shall have no rights under this Agreement or the Plan, other than those of a general unsecured creditor of the Company. No assets of the Company shall be set aside for the settlement of the RSUs.

12. Notices. By accepting the Award, the Participant agrees that notices may be given to the Participant in writing either at the Participant's home or mailing address as shown in the records of the Company or an Affiliate or by electronic transmission (including e-mail or reference to a website or other URL) sent to the Participant through the normal process employed by the Company or the Affiliate, as applicable, for communicating electronically with its employees or other service providers.

13. Assignment and Successors.

a. This Agreement is personal to the Participant and, without the prior approval of the Administrator, shall not be assignable by the Participant, other than by will or the laws of descent and distribution. This Agreement shall inure to the benefit of and be enforceable by the Participant's legal representatives and beneficiaries.

b. This Agreement shall inure to the benefit of and be binding upon the Company and its successors and assigns.

14. Governing Law. This Agreement shall be construed and enforced in accordance with the laws of the State of Delaware, without giving effect to the conflict of law principles thereof; provided that, for the avoidance of doubt, the Restrictive Covenants Agreement shall continue to be governed solely by Pennsylvania law. For the purpose of litigating any dispute that arises under this Agreement, whether at law or in equity, the parties hereby consent to exclusive jurisdiction in the Commonwealth of Pennsylvania and agree that such litigation shall be conducted in the state courts of the Commonwealth of Pennsylvania or the federal courts of the United States for the Eastern District of Pennsylvania.

15. Severability. If any provision of this Agreement is held to be invalid or unenforceable by a court of competent jurisdiction, then such provision or provisions shall be modified to the extent necessary to make such provision valid and enforceable, and to the extent that this is impossible, then such provision shall be deemed to be excised from this Agreement, and the validity, legality, and enforceability of the rest of this Agreement shall not be affected thereby.

16. Entire Agreement. This Agreement, together with the Grant Notice, the Restrictive Covenants Agreement, and the Plan, constitutes the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof, including without limitation any offer letter provision related to the subject matter hereof. No statement, representation, warranty, covenant, or agreement not expressly set forth in this Agreement shall affect or be used to interpret, change, or restrict the express terms and provisions of this Agreement; provided, however, in any event, this Agreement shall be subject to and governed by the Plan.

17. Modifications and Amendments; Waivers and Consents. The terms and provisions of this Agreement may be modified or amended as provided in the Plan. Except as provided in the Plan, the terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent.

18. Code Section 409A. The Award of RSUs evidenced by this Agreement is intended to be exempt from the nonqualified deferred compensation rules of Code Section 409A as a “short-term deferral” within the meaning of Code Section 409A and, to the maximum extent permitted, shall be construed accordingly. Notwithstanding anything to the contrary in the Plan or this Agreement, none of the Company, its Affiliates, the Board of Directors, the Administrator, or any of their respective agents or delegates will have any obligation to take any action to prevent the assessment of any excise tax or penalty on the Participant under Code Section 409A, and none of the Company, its Affiliates, the Board of Directors, the Administrator, or any of their respective agents or delegates will have any liability to the Participant or any other person for such tax or penalty.

To the extent that the RSUs constitute "deferred compensation" under Code Section 409A, a termination of Service occurs only upon an event that would be a "separation from service" within the meaning of Code Section 409A. If, at the time of the Participant's "separation from service," (i) the Participant is a "specified employee" within the meaning of Code Section 409A (and as applied according to procedures of the Company and its Affiliates), and (ii) the Administrator makes a good faith determination that an amount payable under this Agreement on account of the Participant's separation from service constitutes deferred compensation (within the meaning of Code Section 409A), the payment of which is required to be delayed pursuant to the six (6)-month delay rule set forth in Code Section 409A to avoid taxes or penalties under Code Section 409A (the "**Delay Period**"), then the Company will not pay such amount on the otherwise scheduled payment date but will instead pay it in a lump sum on the first business day after the Delay Period (or upon the Participant's death, if earlier), without interest. Each installment of RSUs that vest under this Agreement (if there is more than one installment) will be considered one of a series of separate payments for purposes of Code Section 409A.

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Exhibit A

Restrictive Covenants Agreement

[*see attached*]

Exhibit 10.5

Non-Section 16 Officer Form

MADRIGAL PHARMACEUTICALS, INC.
AMENDED 2015 STOCK PLAN
RESTRICTED STOCK UNIT AWARD
GRANT NOTICE

1. **Name of Participant:** _____

2. **Grant Date of the RSUs (the "Grant Date"):** _____

3. **Number of RSUs:** _____

4. **ting of Award:** Subject to the Participant's continuous employment or other service relationship with or to the Company or any of its Affiliates as an Employee, director, and/or Consultant from the Grant Date through each of the following applicable dates (each such date, a "**Vesting Date**"), the RSUs shall vest twenty-five percent (25%) of the Number of RSUs above on each of the first, second, third, and fourth anniversaries of the Grant Date. Any terms used and not defined herein have the meanings ascribed to such terms in the Madrigal Pharmaceuticals, Inc. Amended 2015 Stock Plan (as it has been and may be amended and/or restated from time to time, the "**Plan**").

By signing this Grant Notice or by electronic acknowledgment of this Grant Notice, the Participant acknowledges receipt of and agrees to all the terms and conditions described in this Restricted Stock Unit Award Grant Notice, the attached Restricted Stock Unit Agreement, and the Plan. The Participant acknowledges that he or she has carefully reviewed the Plan and agrees that the Plan will control in the event any provision of the Agreement should appear to be inconsistent with the Plan.

MADRIGAL PHARMACEUTICALS, INC.

By: _____
Name: _____
Title: _____

_____
PARTICIPANT

ATTACHMENT: Restricted Stock Unit Agreement

MADRIGAL PHARMACEUTICALS, INC.
AMENDED 2015 STOCK PLAN
RESTRICTED STOCK UNIT AGREEMENT

This RESTRICTED STOCK UNIT AGREEMENT (the "**Agreement**") is made as of the "Grant Date" set forth in the Restricted Stock Unit Award Grant Notice ("**Grant Notice**") between MADRIGAL PHARMACEUTICALS, INC. (the "**Company**"), a Delaware corporation, and the individual whose name appears on the Restricted Stock Unit Award Grant Notice (the "**Participant**").

WHEREAS, the Company has adopted the Madrigal Pharmaceuticals, Inc. Amended 2015 Stock Plan (as it has been and may be amended and/or restated from time to time, the "**Plan**") to promote the interests of the Company by providing an incentive for Employees, directors, and Consultants of the Company and its Affiliates;

WHEREAS, pursuant to the provisions of the Plan, the Company desires to grant to the Participant restricted stock units ("**RSUs**") related to the Company's common stock, $0.0001 par value per share ("**Common Stock**"), in accordance with the provisions of the Plan, all on the terms and conditions hereinafter set forth; and

WHEREAS, the Company and the Participant understand and agree that any terms used and not defined herein have the meanings ascribed to such terms in the Plan.

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Grant of Award. The Company hereby grants to the Participant a Stock-Based Award for the number of RSUs set forth in the Grant Notice (the "**Award**"). Each RSU represents a contingent entitlement of the Participant to receive one share of Common Stock, on the terms and conditions and subject to all the limitations set forth herein, in the Grant Notice, and in the Plan, which are incorporated herein by reference.

2. Vesting of Award.

    a. Subject to the terms and conditions set forth in this Agreement and the Plan: (i) the Award shall vest as set forth in the Grant Notice and is subject to the other terms and conditions of this Agreement and the Plan; and (ii) upon vesting, the Participant shall be entitled to receive such number of shares of Common Stock equivalent to the number of such vested RSUs.

b. Notwithstanding anything to the contrary in the Grant Notice or this Agreement, any fractional Shares resulting from the vesting schedule set forth in the Grant Notice will be rounded to the nearest whole Share and shall be rounded up or down as necessary as of the last Vesting Date; provided, in all cases, the Participant cannot vest in more than the number of RSUs set forth in the Grant Notice.

3. Forfeiture of Unvested RSUs.

a. Except as otherwise set forth in this Agreement, the Grant Notice, the Plan, or a separate agreement between Participant and the Company, if the Participant ceases his or her continuous employment or other service relationship with or to the Company or any of its Affiliates as an Employee, director, and/or Consultant ("**Termination**"), then all then-unvested RSUs shall automatically and immediately be forfeited to the Company as of such Termination, and this Agreement and the Grant Notice shall automatically and immediately terminate and be of no further force or effect.

b. For purposes of this Agreement, the Participant's continuous employment or other service relationship with or to the Company or any of its Affiliates as an Employee, director, and/or Consultant does not terminate when the Participant goes on a bona fide leave of absence that was approved by the Administrator in writing, if the terms of the leave provide for continued service crediting, or when continued service crediting is required by applicable law. The Participant's continuous employment or other service relationship with or to the Company or any of its Affiliates as an Employee, director, and/or Consultant terminates in any event when the approved leave ends unless the Participant immediately returns to active work. The Administrator may determine, in its discretion, which leaves count for this purpose and when the Participant's continuous employment or other service relationship with or to the Company or any of its Affiliates as an Employee, director, and/or Consultant terminates for all purposes under the Plan in accordance with the provisions of the Plan.

4. Delivery of Award; Evidence of Issuance. Delivery of the Shares represented by the Participant's vested RSUs shall be made as soon as practicable after the applicable Vesting Date and, in any event, by no later than sixty (60) days following each applicable Vesting Date. The issuance of the Shares represented by the Participant's vested RSUs shall be evidenced in such a manner as the Administrator, in its discretion, deems appropriate, including, without limitation, by (i) book-entry registration or (ii) issuance of one or more share certificates.

5. Prohibitions on Transfer and Sale. This Award (including any additional RSUs received by the Participant as a result of stock dividends, stock splits, or any other similar transaction affecting the Company's securities without receipt of consideration) shall not be transferable, without the prior approval of the Administrator, by the Participant, other than by will or by the laws of descent and distribution. Except as provided in the previous sentence, the Shares to be issued pursuant to this Agreement shall be issued, during the Participant's lifetime, only to the Participant (or, in the event of legal incapacity or incompetence, to the Participant's guardian or representative), and this Award shall not be assigned, pledged, or hypothecated in any way (whether by operation of law or otherwise) and shall not be subject to execution, attachment, or similar process. Any attempted transfer, assignment, pledge, hypothecation, or other disposition of this Award or of any rights granted hereunder contrary to the provisions of this Section 5, or the levy of any attachment or similar process upon this Award, shall be null and void.

6. Adjustments. The Plan contains provisions covering the treatment of RSUs and Shares in a number of contingencies, such as stock splits and Corporate Transactions. Provisions in the Plan for adjustment with respect to this Award and the related provisions with respect to successors to the business of the Company are hereby made applicable hereunder and are incorporated herein by reference.

7. Securities Law Compliance. The Participant specifically acknowledges and agrees that any sales of Shares shall be made in accordance with the requirements of the Securities Act. The Company currently has an effective registration statement on file with the United States Securities and Exchange Commission with respect to the Shares to be granted hereunder.

8. Rights as a Stockholder. The Participant shall have no rights as a stockholder, including voting and dividend rights, with respect to the RSUs subject to this Agreement, unless and until Shares represented by the Participant's vested RSUs have been issued to the Participant and either a certificate evidencing the Shares has been issued or an appropriate entry has been made on the Company's books. No adjustments to Shares represented by the Participant's vested RSUs shall be made for dividends, distributions, or other rights on or with respect to the Common Stock generally if the applicable record date for any such dividend, distribution, or right occurs before the Participant's certificate is issued or an appropriate book entry is made, except as otherwise described in the Plan.

9. Incorporation of the Plan; Clawback. The Participant specifically understands and agrees that the RSUs and the Shares to be issued under the Agreement will be issued to the Participant pursuant to the Plan, a copy of which Plan the Participant acknowledges he or she has received, has read, and understands and by which Plan he or she agrees to be bound. The provisions of the Plan are incorporated herein by reference. In addition, the RSUs (and any compensation paid or Shares issued pursuant to this Agreement) are subject to recoupment in accordance with The Sarbanes-Oxley Act, The Dodd-Frank Wall Street Reform and Consumer Protection Act and any implementing regulations thereunder, any

clawback policy adopted by the Company, and any compensation recovery policy otherwise required by applicable law. No recovery of compensation under such a clawback policy will be an event giving rise to a right to resign for "good reason" or for a "constructive termination" (or similar terms) under any agreement between the Participant and the Company or any Affiliate.

10. Tax Liability of the Participant and Payment of Taxes. The Participant acknowledges and agrees that any income or other taxes due from the Participant with respect to this Award or the Shares to be issued pursuant to this Agreement or otherwise sold shall be the Participant's responsibility. In the event that the Company or an Affiliate determines that any federal, state, local, or foreign tax or withholding payment is required relating to the RSUs, or the delivery of Shares with respect to this Award, the Company or any Affiliate will have the right, and Participant agrees, that the Company shall cause Participant to, and Participant shall, enter into a "same day sale" commitment with a broker-dealer that is a member of the Financial Industry Regulatory Authority (a "**FINRA Dealer**"), whereby the Participant irrevocably elects to sell a portion of the Shares to be delivered in connection with the RSUs to satisfy withholding obligations and whereby the FINRA Dealer irrevocably commits to forward the proceeds necessary to satisfy the withholding obligations directly to the Company or any Affiliate (such process, "**Sell to Cover**"); provided, however, the Administrator shall have the discretion to override Sell to Cover, (i) in lieu of selling a fractional vested Share or (ii) in connection with withholding obligations arising outside the ordinary course, such as outside annual Vesting Dates of the RSUs, and in each case such withholding may be through deduction from payments of any kind otherwise due to the Participant.

The Participant hereby agrees and acknowledges that, in the event that the Company or an Affiliate determines that any federal, state, local, or foreign tax or withholding payment is required relating to the RSUs, or the delivery of Shares with respect to this Award, the Company or any Affiliate will utilize Sell to Cover, and that, in the event Sell to Cover is unavailable for any reason, the Company or any Affiliate shall be entitled to use whatever method it may deem appropriate to recover such taxes (including, without limitation, through deduction from payments of any kind otherwise due to the Participant).

The Participant further agrees that the Administrator may, as it reasonably considers necessary, amend or vary this Agreement due to changes in tax laws to facilitate such recovery of taxes.

11. Participant Acknowledgements and Authorizations. The Participant hereby acknowledges the following:

a. Neither the Company nor any Affiliate is, by the Plan or this Award, obligated to continue the Participant as an Employee, director, or Consultant of the Company or an Affiliate. Unless otherwise specified in a written employment or other written compensatory agreement between the Participant and the Company or an Affiliate, the Company or any Affiliate, as applicable, reserves the right to terminate the Participant's employment or other service relationship with the Company or an Affiliate at any time and for any reason.

b. The Plan is discretionary in nature and may be suspended or terminated by the Company at any time.

c. The grant of this Award is considered a one-time benefit and does not create a contractual or other right to receive any other award under the Plan, benefits in lieu of awards, or any other benefits in the future.

d. The Plan is a voluntary program of the Company and future awards, if any, will be at the sole discretion of the Company, including, but not limited to, the timing of any grant, the amount of any award, vesting provisions, and the purchase price, if any.

e. The value of this Award is an extraordinary item of compensation outside of the scope of the Participant's employment or consulting contract, agreement, or arrangement. As such, the Award is not part of normal or expected compensation for purposes of calculating any severance, resignation, redundancy, end of service payments, bonuses, long-service awards, pension or retirement benefits, or similar payments. The future value of the shares of Common Stock is unknown and cannot be predicted with certainty.

f. The Participant (i) authorizes the Company and each Affiliate and any agent of the Company or any Affiliate administering the Plan or providing Plan recordkeeping services to disclose to the Company or any of its Affiliates such information and data as the Company or any such Affiliate shall request in order to facilitate the grant of the Award and the administration of the Plan; and (ii) authorizes the Company and each Affiliate to store and transmit such information in electronic form for the purposes set forth in this Agreement.

g. The obligation of the Company to deliver Shares pursuant to this Award constitutes an unfunded and unsecured obligation of the Company. Until Shares are delivered, the Participant shall have no rights under this Agreement or the Plan, other than those of a general unsecured creditor of the Company. No assets of the Company shall be set aside for the settlement of the RSUs.

12. Notices. By accepting the Award, the Participant agrees that notices may be given to the Participant in writing either at the Participant's home or mailing address as shown in the records of the Company or an Affiliate or by electronic transmission (including e-mail or reference to a website or other URL) sent to the Participant through the normal process employed by the Company or the Affiliate, as applicable, for communicating electronically with its employees or other service providers.

13. Assignment and Successors.

    a. This Agreement is personal to the Participant and, without the prior written approval of the Administrator, shall not be assignable by the Participant, other than by will or the laws of descent and distribution. This Agreement shall inure to the benefit of and be enforceable by the Participant's legal representatives and beneficiaries.

    b. This Agreement shall inure to the benefit of and be binding upon the Company and its successors and assigns.

14. Governing Law. This Agreement shall be construed and enforced in accordance with the laws of the State of Delaware, without giving effect to the conflict of law principles thereof. For the purpose of litigating any dispute that arises under this Agreement, whether at law or in equity, the parties hereby consent to exclusive jurisdiction in the Commonwealth of Pennsylvania and agree that such litigation shall be conducted in the state courts of the Commonwealth of Pennsylvania or the federal courts of the United States for the Eastern District of Pennsylvania.

15. Severability. If any provision of this Agreement is held to be invalid or unenforceable by a court of competent jurisdiction, then such provision or provisions shall be modified to the extent necessary to make such provision valid and enforceable, and to the extent that this is impossible, then such provision shall be deemed to be excised from this Agreement, and the validity, legality, and enforceability of the rest of this Agreement shall not be affected thereby.

16. Entire Agreement. This Agreement, together with the Grant Notice and the Plan, constitutes the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof, including without limitation any offer letter provision related to the subject matter hereof. No statement, representation, warranty, covenant, or agreement not expressly set forth in this Agreement shall affect or be used to interpret, change, or restrict the express terms and provisions of this Agreement; provided, however, in any event, this Agreement shall be subject to and governed by the Plan.

17. Modifications and Amendments; Waivers and Consents. The terms and provisions of this Agreement may be modified or amended as provided in the Plan. Except as provided in the Plan, the terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent.

18. Code Section 409A. The Award of RSUs evidenced by this Agreement is intended to be exempt from the nonqualified deferred compensation rules of Code Section 409A as a "short-term deferral" within the meaning of Code Section 409A and, to the maximum extent permitted, shall be construed accordingly. Notwithstanding anything to the contrary in the Plan or this Agreement, none of the Company, its Affiliates, the Board of Directors, the Administrator, or any of their respective agents or delegates will have any obligation to take any action to prevent the assessment of any excise tax or penalty on the Participant under Code Section 409A, and none of the Company, its Affiliates, the Board of Directors, the Administrator, or any of their respective agents or delegates will have any liability to the Participant or any other person for such tax or penalty.

    To the extent that the RSUs constitute "deferred compensation" under Code Section 409A, a termination of Service occurs only upon an event that would be a "separation from service" within the meaning of Code Section 409A. If, at the time of the Participant's "separation from service," (i) the Participant is a "specified employee" within the meaning of Code Section 409A (and as applied according to procedures of the Company and its Affiliates), and (ii) the Administrator makes a good faith determination that an amount payable under this Agreement on account of the Participant's separation from service constitutes deferred compensation (within the meaning of Code Section 409A), the payment of which is required to be delayed pursuant to the six (6)-month delay rule set forth in Code Section 409A to avoid taxes or penalties under Code Section 409A (the "**Delay Period**"), then the Company will not pay such amount on the otherwise scheduled payment date but will instead pay it in a lump sum on the first business day after the Delay Period (or upon the Participant's death, if earlier), without interest. Each installment of RSUs that vest under this Agreement (if there is more than one installment) will be considered one of a series of separate payments for purposes of Code Section 409A.

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Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a) AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Paul A. Friedman, M.D., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Madrigal Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Paul A. Friedman, M.D.

Paul A. Friedman, M.D.
Chief Executive Officer and Chairman of the Board
(Principal Executive Officer)
Date: August 8, 2023

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a) AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Alex G. Howarth, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Madrigal Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Alex G. Howarth
Alex G. Howarth
Senior Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)
Date: August 8, 2023

Exhibit 32.1

**CERTIFICATIONS PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002**

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Subsections (a) and (b) of Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. Section 1350)), each of the undersigned officers of Madrigal Pharmaceuticals, Inc., a Delaware corporation (the "Company"), does hereby certify, to such officer's knowledge, that:

The Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2023 (the "Form 10-Q") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: August 8, 2023

/s/ Paul A. Friedman, M.D.

Paul A. Friedman, M.D.
Chief Executive Officer and Chairman of the Board
(Principal Executive Officer)

Dated: August 8, 2023

/s/ Alex G. Howarth

Alex G. Howarth
Senior Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

These certifications accompany the Form 10-Q, are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.