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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 001-36177

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

Delaware **(State or Other Jurisdiction of Incorporation or Organization)**	**06-1686563** **(I.R.S. Employer Identification No.)**
9708 Medical Center Drive **Rockville, Maryland** **(Address of principal executive offices)**	**20850** **(Zip Code)**

(240) 243-1201
(Registrant's telephone number, including area code)

N/A
(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common Stock, $0.001 par value	GLYC	The Nasdaq Stock Market

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 ☐ Smaller Reporting Company ☒

Non-accelerated Filer ☒ 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 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Securities Exchange Act of 1934). Yes ☐ No ☒

The number of outstanding shares of the registrant's common stock, par value $0.001 per share, as of the close of business on July 31, 2023 was 64,316,268.

GLYCOMIMETICS, INC.

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PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

GLYCOMIMETICS, INC.
Balance Sheets

	June 30, 2023	December 31, 2022
Assets	(Unaudited)	
Current assets:		
Cash and cash equivalents	$ 58,037,072	$ 47,870,619
Prepaid expenses and other current assets	2,331,762	2,844,086
Total current assets	60,368,834	50,714,705
Property and equipment, net	167,859	242,390
Prepaid research and development expenses	50,000	50,000
Deposits	52,320	52,320
Operating lease right-of-use asset	1,182,500	751,174
Total assets	$ 61,821,513	$ 51,810,589
Liabilities & stockholders' equity		
Current liabilities:		
Accounts payable	$ 241,487	$ 970,191
Accrued expenses	5,510,272	6,992,006
Lease liabilities	820,243	918,555
Total current liabilities	6,572,002	8,880,752
Lease liabilities, net of current portion	448,775	—
Total liabilities	7,020,777	8,880,752
Stockholders' equity:		
Preferred stock; $0.001 par value; 5,000,000 shares authorized, no shares issued and outstanding at June 30, 2023 and December 31, 2022	—	—
Common stock; $0.001 par value; 100,000,000 shares authorized; 64,313,333 shares issued and outstanding at June 30, 2023; 54,377,798 shares issued and outstanding at December 31, 2022	64,313	54,378
Additional paid-in capital	492,940,477	462,461,251
Accumulated deficit	(438,204,054)	(419,585,792)
Total stockholders' equity	54,800,736	42,929,837
Total liabilities and stockholders' equity	$ 61,821,513	$ 51,810,589

The accompanying notes are an integral part of the unaudited financial statements.

GLYCOMIMETICS, INC.
Unaudited Statements of Operations and Comprehensive Loss

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Revenue from collaboration and license agreements	$ —	$ 75,000	$ —	$ 75,000
Costs and expenses:				
Research and development expense	4,072,708	7,973,278	9,491,414	17,577,200
General and administrative expense	4,857,237	5,454,877	10,379,549	10,511,065
Total costs and expenses	8,929,945	13,428,155	19,870,963	28,088,265
Loss from operations	(8,929,945)	(13,353,155)	(19,870,963)	(28,013,265)
Interest income	671,033	85,588	1,252,701	92,657
Net loss and comprehensive loss	$ (8,258,912)	$ (13,267,567)	$ (18,618,262)	$ (27,920,608)
Basic and diluted net loss per common share	$ (0.13)	$ (0.25)	$ (0.30)	$ (0.53)
Basic and diluted weighted-average number of common shares outstanding	64,276,184	52,407,347	62,313,155	52,369,369

The accompanying notes are an integral part of the unaudited financial statements.

GLYCOMIMETICS, INC.
Unaudited Statements of Stockholders' Equity

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Equity
Balance at December 31, 2022	54,377,798	$ 54,378	$ 462,461,251	$ (419,585,792)	$ 42,929,837
Issuance of common stock, net of issuance costs	9,822,930	9,823	28,697,188	—	28,707,011
Common stock issued under stock plans	44,496	44	33,724	—	33,768
Stock-based compensation	—	—	870,180	—	870,180
Net loss	—	—	—	(10,359,350)	(10,359,350)
Balance at March 31, 2023	64,245,224	64,245	492,062,343	(429,945,142)	62,181,446
Common stock issued under stock plans	68,109	68	20,046	—	20,114
Stock-based compensation	—	—	858,088	—	858,088
Net loss	—	—	—	(8,258,912)	(8,258,912)
Balance at June 30, 2023	64,313,333	$ 64,313	$ 492,940,477	$ (438,204,054)	$ 54,800,736

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Equity
Balance at December 31, 2021	52,313,894	$ 52,314	$ 454,448,327	$ (372,896,990)	$ 81,603,651
Common stock issued under stock plans	78,550	78	(78)	—	—
Stock-based compensation	—	—	1,080,642	—	1,080,642
Net loss	—	—	—	(14,653,041)	(14,653,041)
Balance at March 31, 2022	52,392,444	52,392	455,528,891	(387,550,031)	68,031,252
Common stock issued under stock plans	31,500	32	(32)	—	—
Stock-based compensation	—	—	963,758	—	963,758
Net loss	—	—	—	(13,267,567)	(13,267,567)
Balance at June 30, 2022	52,423,944	$ 52,424	$ 456,492,617	$ (400,817,598)	$ 55,727,443

The accompanying notes are an integral part of the unaudited financial statements.

GLYCOMIMETICS, INC.
Unaudited Statements of Cash Flows

	Six Months Ended June 30,	
	2023	2022
Operating activities		
Net loss	$ (18,618,262)	$ (27,920,608)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	87,257	114,080
Loss on disposal of assets	—	3,498
Non-cash lease expense	441,566	402,479
Stock-based compensation	1,728,268	2,044,400
Changes in assets and liabilities:		
Prepaid expenses and other current assets	512,324	(485,436)
Prepaid research and development expenses	—	(660,800)
Accounts payable	(728,704)	(836,670)
Accrued expenses	(1,481,734)	(2,104,703)
Lease liabilities	(522,428)	(485,046)
Net cash used in operating activities	(18,581,713)	(29,928,806)
Investing activities		
Purchases of property and equipment	(12,727)	(81,707)
Net cash used in investing activities	(12,727)	(81,707)
Financing activities		
Proceeds from issuance of common stock, net of issuance costs	28,707,011	—
Proceeds from exercise of stock options	53,882	—
Net cash provided by financing activities	28,760,893	—
Net change in cash and cash equivalents	10,166,453	(30,010,513)
Cash and cash equivalents, beginning of period	47,870,619	90,254,890
Cash and cash equivalents, end of period	$ 58,037,072	$ 60,244,377

The accompanying notes are an integral part of the unaudited financial statements.

GLYCOMIMETICS, INC.
Notes to Unaudited Financial Statements

1. Description of the Business

GlycoMimetics, Inc. (the Company), a Delaware corporation headquartered in Rockville, Maryland, was incorporated in 2003. The Company is a late-stage clinical development biotechnology company focused on improving the lives of people living with cancer and inflammatory diseases by leveraging the inhibition of carbohydrate interactions that occur on the surface of cells. The Company is developing a pipeline of proprietary glycomimetics, which are small molecules that mimic the structure of carbohydrates involved in important biological processes, to inhibit disease-related functions of carbohydrates such as the roles they play in inflammation, cancer and infection.

The Company's executive personnel have devoted substantially all of their time to date to the planning and organization of the Company, the process of hiring scientists, initiating research and development programs and securing adequate capital for anticipated growth and operations. The Company has not commercialized any of its drug candidates and planned commercial operations have not commenced. The Company has incurred significant losses in the development of its drug candidates. The Company has not generated revenues from product sales. As a result, the Company has consistently reported negative cash flows from operating activities and net losses, had an accumulated deficit of $438.2 million at June 30, 2023 and expects to continue incurring losses for the foreseeable future.

The Company believes that its cash and cash equivalents as of June 30, 2023 will be sufficient to fund the Company's operations for at least 12 months from the issuance of these financial statements. Management intends to fund future operations through additional public or private equity or debt offerings and may seek additional capital through arrangements with strategic partners or from other sources, the securing of which cannot be assured.

2. Significant Accounting Policies

There have been no material changes to the significant accounting policies previously disclosed in the Company's Annual Report on Form 10-K for the year ended December 31, 2022, filed with the United States Securities and Exchange Commission (the SEC) on March 29, 2023 (the Form 10-K).

Basis of Accounting

The accompanying unaudited financial statements were prepared based on the accrual method of accounting in accordance with U.S. generally accepted accounting principles (GAAP).

Unaudited Financial Statements

The accompanying balance sheet as of June 30, 2023, statements of operations and comprehensive loss and stockholders' equity for the three and six months ended June 30, 2023 and 2022 and statements of cash flows for the six months ended June 30, 2023 and 2022 are unaudited. These unaudited financial statements have been prepared in accordance with the rules and regulations of the SEC for interim financial information. Accordingly, they do not include all of the information and footnotes required by GAAP for complete annual financial statements. These unaudited financial statements should be read in conjunction with the audited financial statements and the accompanying notes for the year ended December 31, 2022 contained in the Form 10-K. The unaudited interim financial statements have been prepared on the same basis as the annual financial statements and in the opinion of management reflect all adjustments (consisting of normal recurring adjustments) necessary to state fairly the Company's financial position as of June 30, 2023 and its results of operations and changes in its stockholders' equity for the three and six months ended June 30, 2023 and 2022 and its cash flows for the six months ended June 30, 2023 and 2022. The December 31, 2022 balance sheet included herein was derived from audited financial statements, but does not include all disclosures including notes required by GAAP for complete annual financial statements. The financial data and other information disclosed in these notes to the financial statements related to the three and six months ended June 30, 2023 and 2022 are unaudited. Interim results are not necessarily indicative of results for an entire year or for any future period.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Although actual results could differ from those estimates, management does not believe that such differences would be material.

Fair Value Measurements

The Company had no assets or liabilities that were measured using quoted prices for similar assets and liabilities or significant unobservable inputs (Level 2 and Level 3 assets and liabilities, respectively) as of June 30, 2023 and December 31, 2022. The carrying value of cash held in money market funds of $55.4 million and $45.9 million as of June 30, 2023 and December 31, 2022, respectively, is included in cash and cash equivalents and approximates market values based on quoted market prices (Level 1 inputs). The Company did not transfer any assets measured at fair value on a recurring basis between levels during the three and six months ended June 30, 2023 and 2022.

Concentration of Credit Risk

Credit risk represents the risk that the Company would incur a loss if counterparties failed to perform pursuant to the terms of their agreements. Financial instruments that potentially expose the Company to concentrations of credit risk consist primarily of cash and cash equivalents. The Company maintains its cash balances with financial institutions in federally insured accounts and has cash balances in excess of the insurance limits. Cash equivalents consist of investment in United States government money market funds with major financial institutions. These deposits and funds may be redeemed upon demand and the Company does not anticipate any losses on such balances. The Company has not experienced any losses to date and believes that it is not exposed to any significant credit risk on cash and cash equivalents.

Revenue Recognition

The Company applies Accounting Standards Codification, or ASC, Topic 606, *Revenue from Contracts with Customers* (Topic 606), to all contracts with customers, except for contracts that are within the scope of other standards, such as leases, insurance, collaboration arrangements and financial instruments. Under Topic 606, an entity recognizes revenue when its customer obtains control of promised goods or services in an amount that reflects the consideration which the entity expects to receive in exchange for those goods and services. To determine revenue recognition for arrangements that an entity determines are within the scope of Topic 606, the entity performs the following five steps: (i) identify the contract(s) with the customer(s); (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. The Company only applies the five-step model to contracts when it is probable that the entity will collect the consideration it is entitled to in exchange for the goods and services it transfers to the customer. At contract inception, the Company assesses the goods or services promised within each contract that falls under the scope of Topic 606, determines those that are performance obligations and assesses whether each promised good or service is distinct. The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied.

The Company enters into licensing agreements which are within the scope of Topic 606, under which it licenses certain of its drug candidates' rights to third parties. The terms of these arrangements typically include payment of one or more of the following: non-refundable, up-front license fees; development, regulatory and commercial milestone payments; and royalties on net sales of the licensed product, if and when earned. See Note 9 for additional information regarding the Company's license agreements.

In determining the appropriate amount of revenue to be recognized as it fulfills its obligation under each of its agreements, the Company performs the five steps under Topic 606 described above. As part of the accounting for these arrangements, the Company must develop assumptions that require judgment to determine the stand-alone selling price,

which may include forecasted revenues, development timelines, reimbursement of personnel costs, discount rates and probabilities of technical and regulatory success.

Licensing of Intellectual Property: If the license to the Company's intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, the Company recognizes revenue from non-refundable, up-front fees allocated to the license when the license is transferred to the licensee and the licensee is able to use and benefit from the license. For licenses that are bundled with other promises, the Company utilizes judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue from non-refundable, up-front fees. The Company evaluates the measure of progress each reporting period, and, if necessary, adjusts the measure of performance and related revenue recognition.

Milestone Payments: At the inception of each arrangement that includes development milestone payments, the Company evaluates whether the milestones are considered probable of being reached and estimates the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal will not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within the control of the Company or the licensee, such as regulatory approvals, are not considered probable of being achieved until those approvals are received. The transaction price is then allocated to each performance obligation on a relative stand-alone selling price basis, for which the Company recognizes revenue as or when the performance obligations under the contract are satisfied. At the end of each subsequent reporting period, the Company re-evaluates the probability of achievement of such development milestones and any related constraint and, if necessary, adjusts its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect license, collaboration and other revenues and earnings in their period of adjustment.

Royalties: For arrangements that include sales-based royalties, including milestone payments based on the level of sales, and for which the license is deemed to be the predominant item to which royalties relate, the Company recognizes revenue at the later of (i) when the related sales occur or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied). To date, the Company has not recognized any royalty revenue from its license agreements.

Manufacturing and Supply: The obligations under the Company's agreements may include clinical and/or commercial manufacturing products to be provided by the Company to the counterparty. The services are generally determined to be distinct from the other promises or performance obligations identified in the arrangement. The Company recognizes the transaction price allocated to these services as revenue at a point in time when transfer of control of the related products to the customer occurs.

Accruals for Clinical Trial Expenses

Clinical trial costs primarily consist of expenses incurred under agreements with contract research organizations (CROs), investigative sites, laboratory testing expenses, data management and consultants that conduct the Company's clinical trials. Clinical trial expenses are a significant component of research and development expenses, and the Company outsources a significant portion of these clinical trial activities to third parties. The accrual for site and patient costs includes inputs such as estimates of patient enrollment, patient cycles incurred, clinical site close-out activities, estimated project duration and other pass-through costs. These inputs are required to be estimated due to a lag in receiving the actual clinical information from third parties. Payments for these activities are based on the terms of the individual arrangements, which may differ from the pattern of costs incurred, and are reflected on the balance sheets as a prepaid asset or accrued expenses. These third-party agreements are generally cancellable, and related costs are recorded as research and development expenses as incurred. Except for payments made in advance of services, clinical trial costs are expensed as incurred. Non-refundable advance clinical payments for goods or services that will be used or rendered for future research and development activities are recorded as a prepaid asset and recognized as expense as the related goods are delivered or the related services are performed. When evaluating the adequacy of the accrued expenses, management assessments include: (i) an evaluation by the project manager of the work that has been completed during the period; (ii) measurement of progress prepared internally and/or provided by the third-party service provider; (iii) analyses of data that justify the progress; and (iv) the Company's judgment. Significant judgments and estimates may be made in determining the accrued balances at the end of any reporting period. Actual results could differ from the

estimates made. The Company's historical clinical accrual estimates have not been materially different from the actual costs.

Stock-Based Compensation

Stock-based payments are accounted for in accordance with the provisions of ASC 718, *Compensation—Stock Compensation*. The fair value of stock-based payments is estimated, on the date of grant, using the Black-Scholes-Merton model. The resulting fair value is recognized ratably over the requisite service period, which is generally the vesting period of the option. The Company accounts for forfeitures as they occur.

The Company has elected to use the Black-Scholes-Merton option pricing model to value any options granted. The Company will reconsider use of the Black-Scholes-Merton model if additional information becomes available in the future that indicates another model would be more appropriate or if grants issued in future periods have characteristics that prevent their value from being reasonably estimated using this model.

A discussion of management's methodology for developing some of the assumptions used in the valuation model follows:

Expected Dividend Yield—The Company has never declared or paid dividends and has no plans to do so in the foreseeable future.

Expected Volatility—Volatility is a measure of the amount by which a financial variable such as share price has fluctuated (historical volatility) or is expected to fluctuate (expected volatility) during a period. The Company bases the expected volatility on the historical volatility of the Company's publicly traded common stock.

Risk-Free Interest Rate—This is the U.S. Treasury rate for the week of each option grant during the year, having a term that most closely resembles the expected life of the option.

Expected Term—This is a period of time that the options granted are expected to remain unexercised. Options granted have a maximum term of 10 years. The Company estimates the expected life of the option term to be 6.25 years. The Company uses a simplified method to calculate the average expected term.

Net Loss Per Common Share

Basic net loss per common share is determined by dividing net loss by the weighted-average number of common shares outstanding during the period, without consideration of common stock equivalents. Diluted net loss per share is computed by dividing net loss by the weighted-average number of common stock equivalents outstanding for the period. The treasury stock method is used to determine the dilutive effect of the Company's stock options and restricted stock units (RSUs).

The following potentially dilutive securities outstanding have been excluded from the computation of diluted weighted-average common shares outstanding, as they would be anti-dilutive:

	Six Months Ended June 30,	
	2023	2022
Stock options and RSUs	11,469,764	9,627,891

Comprehensive Loss

Comprehensive loss comprises net loss and other changes in equity that are excluded from net loss. For the three and six months ended June 30, 2023 and 2022, the Company's net loss equaled comprehensive net loss and, accordingly, no additional disclosure is presented.

Recently Issued Accounting Standards

Accounting Standards Not Yet Adopted

There have been no new accounting pronouncements that have significance, or potential significance, to the Company's unaudited financial statements as of and for the six months ended June 30, 2023.

3. Prepaid Expenses and Other Current Assets

The following is a summary of the Company's prepaid expenses and other current assets:

	June 30, 2023	December 31, 2022
Prepaid research and development expenses	$ 1,362,220	$ 2,300,209
Other prepaid expenses	754,174	399,861
Other receivables	215,368	144,016
Prepaid expenses and other current assets	$ 2,331,762	$ 2,844,086

4. Property and Equipment

Property and equipment, net consists of the following:

	June 30, 2023	December 31, 2022
Furniture and fixtures	$ 342,203	$ 342,203
Laboratory equipment	1,345,947	1,343,081
Office equipment	18,943	17,762
Computer equipment	312,022	309,826
Leasehold improvements	616,133	616,133
Property and equipment	2,635,248	2,629,005
Less accumulated depreciation	(2,467,389)	(2,386,615)
Property and equipment, net	$ 167,859	$ 242,390

Depreciation expense was $43,419 and $54,773 for the three months ended June 30, 2023 and 2022, respectively, and $87,257 and $114,080 for the six months ended June 30, 2023 and 2022, respectively.

5. Accrued Expenses

The following is a summary of the Company's accrued expenses:

	June 30, 2023	December 31, 2022
Accrued research and development expenses	$ 2,061,209	$ 3,484,742
Accrued bonuses	1,796,306	2,664,613
Accrued consulting and other professional fees	861,260	499,592
Accrued employee benefits	770,827	300,653
Other accrued expenses	20,670	42,406
Accrued expenses	$ 5,510,272	$ 6,992,006

6. Leases

At the inception of an arrangement, the Company determines whether the arrangement is or contains a lease based on the circumstances present. The Company determines a lease exists if the contract conveys the right to control an identified asset for a period of time in exchange for consideration. Control is considered to exist when the lessee has the

right to obtain substantially all of the economic benefits from the use of an identified asset as well as direct the right to use of that asset. Leases with a term greater than one year are recognized on the balance sheet as right-of-use assets, lease liabilities and, if applicable, long-term lease liabilities. The Company has elected not to recognize on the balance sheet leases with terms of one year or less on the lease commencement date. If a contract is considered to be a lease, the Company recognizes a lease liability based on the present value of the future lease payments over the expected lease term, with an offsetting entry to recognize a right-of-use asset.

The interest rate implicit in lease contracts is typically not readily determinable. As such, the Company utilizes the appropriate incremental borrowing rate, which is the rate incurred to borrow on a collateralized basis over a term similar to the term of the lease for which the rate is estimated. Certain adjustments to the right-of-use asset may be required for items such as initial direct costs paid or incentives received.

The Company leases office and research space in Rockville, Maryland under an operating lease, with an initial term through October 31, 2023, that is subject to annual rent increases (the Lease). The Company paid a security deposit of $52,320 to be held until the expiration or termination of the Company's obligations under the Lease. In April 2023, the Company and its landlord entered into an amendment to the Lease (the Lease Amendment). Pursuant to the Lease Amendment, the Company and the landlord agreed that the lease term for a portion of the premises consisting of approximately 30,000 square feet, would be extended for the period from November 1, 2023 to January 31, 2025. The Company's lease of the remaining premises, consisting of approximately 12,000 square feet, will terminate on the original Lease expiration date of October 31, 2023.

The components of lease expense and related cash flows were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Operating lease cost	$ 247,359	$ 231,989	$ 479,349	$ 463,979
Variable lease cost	133,022	153,753	316,296	304,885
Total operating lease cost	$ 380,381	$ 385,742	$ 795,645	$ 768,864
Cash paid for amounts included in the measurement of lease liabilities:				
Operating cash outflows for operating leases	$ 280,518	$ 273,676	$ 560,210	$ 546,547

Maturities of lease liability due under the Company's lease agreements as of June 30, 2023 were as follows:

	Operating Lease Obligation
July 1, 2023 - December 31, 2023	$ 511,559
2024	789,183
2025	67,401
Thereafter	—
Total	1,368,143
Present value adjustment	(99,125)
Present value of lease payments	$ 1,269,018

Supplemental information related to leases were as follows:

Operating Leases	June 30, 2023	December 31, 2022
Weighted-average remaining lease term (in years)	1.46	0.80
Weighted-average incremental borrowing rate	9.8%	8.0%

	Six Months Ended June 30,	
	2023	2022
Right-of-use assets obtained in exchange for operating lease obligations	$ 872,892	$ -

7. Stockholders' Equity

At-The-Market Sales Facility

In March 2022, the Company filed a shelf registration statement with the SEC, which was declared effective on April 22, 2022. On April 28, 2022, the Company terminated an at-the-market sales agreement previously entered into with Cowen and Company, LLC (Cowen) in 2020 and entered into a new at-the-market sales agreement (the 2022 Sales Agreement) with Cowen. Under the 2022 Sales Agreement, the Company may sell up to $100.0 million worth of shares of common stock. During the year ended December 31, 2022, the Company issued and sold 1,953,854 shares of common stock under the 2022 Sales Agreement at a weighted average price per share of $2.22, for aggregate net proceeds of $4.2 million, after deducting commissions and offering expenses.

During the quarter ended March 31, 2023, the Company issued and sold 9,822,930 shares of common stock under the 2022 Sales Agreement at a weighted average price per share of $3.01, for aggregate net proceeds of $28.7 million, after deducting commissions and offering expenses. There were no sales during the quarter ended June 30, 2023. As of June 30, 2023, approximately $66.0 million remained available to be sold under the terms of the 2022 Sales Agreement.

2013 Equity Incentive Plan

The Company's board of directors adopted, and its stockholders approved, its 2013 Equity Incentive Plan (the 2013 Plan) effective on January 9, 2014. In April 2022, the Company's board of directors approved an amendment and restatement of the 2013 Plan, which was approved by the Company's stockholders at the Company's annual meeting of stockholders held in May 2022 (as so amended, the Amended 2013 Plan).

The Amended 2013 Plan provides for the grant of incentive stock options within the meaning of Section 422 of the Internal Revenue Code to the Company's employees and its parent and subsidiary corporations' employees, and for the grant of nonstatutory stock options, restricted stock awards, RSU awards, stock appreciation rights, performance stock awards and other forms of stock compensation to its employees, including officers, consultants and directors. The Amended 2013 Plan also provides for the grant of performance cash awards to the Company's employees, consultants and directors. Unless otherwise stated in a stock option agreement, 25% of the shares subject to an option grant will typically vest upon the first anniversary of the vesting start date, with the balance of the shares vesting in a series of thirty-six successive equal monthly installments as of the first day of each month measured from the first anniversary of the vesting start date. Upon termination of employment by reasons other than death, cause, or disability, any vested options will terminate 90 days after the termination date, unless otherwise set forth in a stock option agreement. Stock options generally terminate 10 years from the date of grant.

Authorized Shares

The maximum number of shares of common stock that initially could be issued under the 2013 Plan was 1,000,000 shares, plus any shares subject to stock options or similar awards granted under the Company's prior 2003 Equity Incentive Plan that expired or terminated without having been exercised in full or were forfeited or repurchased by the Company. The number of shares of common stock reserved for issuance under the 2013 Plan automatically increased on January 1 of each year, through January 1, 2022, by 3% of the total number of shares of common stock outstanding on December 31 of the preceding calendar year.

Following the approval of the Amended 2013 Plan by the Company's stockholders, the share reserve under the Amended 2013 Plan was increased by 2,619,622 shares, and beginning on January 1, 2023 and ending on (and including) January 1, 2029, the maximum number of shares of common stock that may be issued under the Amended 2013 Plan will cumulatively be increased by 4% of the number of shares of common stock issued and outstanding on the immediately preceding December 31, or such lesser number of shares as determined by the board of directors or the compensation committee thereof. The maximum number of shares that may be issued pursuant to exercise of incentive stock options under the Amended 2013 Plan is 20,000,000 shares. As of June 30, 2023, the total number of shares

reserved for issuance under the Amended 2013 Plan was 11,681,878 shares, of which 2,128,873 shares were available for future grants.

Shares issued under the Amended 2013 Plan may be authorized but unissued or reacquired shares of common stock. Shares subject to stock awards granted under the Amended 2013 Plan that expire or terminate without being exercised in full, or that are paid out in cash rather than in shares, will not reduce the number of shares available for issuance under the Amended 2013 Plan. Additionally, shares issued pursuant to stock awards under the Amended 2013 Plan that the Company repurchases or that are forfeited, as well as shares reacquired by the Company as consideration for the exercise or purchase price of a stock award or to satisfy tax withholding obligations related to a stock award, will become available for future grant under the Amended 2013 Plan.

A summary of the Company's stock option activity under the Amended 2013 Plan for the six months ended June 30, 2023 is as follows:

	OUTSTANDING OPTIONS	WEIGHTED-AVERAGE EXERCISE PRICE	WEIGHTED-AVERAGE REMAINING CONTRACTUAL TERM (YEARS)	AGGREGATE INTRINSIC VALUE (IN THOUSANDS)
Outstanding as of December 31, 2022	6,774,792	$ 6.37	6.1	
Options granted	2,451,050	2.55		
Options exercised	(44,550)	1.21		
Options forfeited	(409,085)	2.97		
Outstanding as of June 30, 2023	8,772,207	5.49	6.3	$ 1,037
Vested or expected to vest as of June 30, 2023	8,630,307	5.56	6.3	948
Exercisable as of June 30, 2023	5,155,455	7.72	4.4	430

As of June 30, 2023, there was $5,623,046 of total unrecognized compensation expense related to unvested options under the Amended 2013 Plan that will be recognized over a weighted-average period of approximately 2.9 years. Total intrinsic value of the options exercised during the six months ended June 30, 2023 was $54,083 and total cash received for options exercised was $53,882. There were no options exercised under the Amended 2013 Plan during the six months ended June 30, 2022. The total fair value of stock options which vested in the six months ended June 30, 2023 and 2022 was $1,090,699 and $2,060,622, respectively.

In January 2022, the Company granted stock options to purchase an aggregate of 141,900 shares to certain employees under the 2013 Plan which were subject to performance vesting conditions. The shares will vest upon achievement of milestones as follows: (i) one-half of the shares will vest upon FDA approval of uproleselan for patients with relapsed/refractory acute myeloid leukemia and (ii) one-half of the shares will vest upon the first commercial sale of uproleselan in the United States or abroad. The maximum fair value of $113,520 associated with the performance-based options granted in January 2022 is excluded from the unrecognized compensation expense under the 2013 Plan as the completion of the performance milestones was not probable as of June 30, 2023. The Company will reevaluate at the end of each reporting period the probability that the performance conditions will be achieved and will record any adjustments to the compensation cost at that time.

An RSU is a stock award that entitles the holder to receive shares of the Company's common stock as the award vests. The fair value of each RSU is based on the closing price of the Company's common stock on the date of grant. In January 2021, the Company awarded RSUs under the 2013 Plan to all of its employees. The RSUs granted vest over four years in equal installments on each anniversary of the grant date, provided that the employee remains employed by the Company at the applicable vesting date. Compensation expense is recognized on a straight-line basis. As of June 30, 2023, there was $347,710 of total unrecognized compensation expense associated with outstanding RSU grants that will be recognized over a weighted-average period of approximately 1.6 years.

The following is a summary of RSU activity under the Amended 2013 Plan for the six months ended June 30, 2023:

	Number of Shares Underlying RSUs	Weighted-Average Grant Date Fair Value
Unvested at December 31, 2022	204,785	$ 3.81
Forfeited	(19,573)	3.81
Vested	(68,055)	3.81
Unvested at June 30, 2023	117,157	3.81

Other Awards

In March 2023, the Company's board of directors amended the Company's Non-Employee Director Compensation Policy to include an election to receive shares in lieu of cash compensation, effective with the third quarter 2023 quarterly payment (the Amended Policy). In the Amended Policy, non-employee directors may make an election to receive all or a portion of their cash compensation payable in the form of unrestricted shares of the Company's common stock. The number of shares of Common Stock to be issued in lieu of cash compensation shall be determined on a quarterly basis, on the last day of each fiscal quarter, by dividing the dollar amount of the compensation to be paid for such quarter that is subject to the election by the closing price of a share of Common Stock on the last trading day of the fiscal quarter, rounded up to the nearest whole share. All shares of Common Stock issued pursuant to such an election will be fully vested upon issuance and will be issued as "Other Awards" under the Amended 2013 Plan.

Inducement Plan

The Company's board of directors previously adopted the GlycoMimetics, Inc. Inducement Plan (as amended to date, the Inducement Plan). The Inducement Plan provides for the grant of nonstatutory stock options, restricted stock awards, RSU awards, stock appreciation rights and other forms of stock awards to individuals not previously an employee or director of the Company as an inducement for such individuals to join the Company. Unless otherwise stated in an applicable stock option agreement, one-fourth of the shares subject to an option grant under the Inducement Plan will typically vest upon the first anniversary of the vesting start date, with the balance of the shares vesting in a series of thirty-six successive equal monthly installments as of the first day of each month measured from the first anniversary of the vesting start date, subject to the new employee's continued service with the Company through the applicable vesting dates. Upon termination of employment by reasons other than death, cause or disability, any vested options will terminate 90 days after the termination date, unless otherwise set forth in a stock option agreement. Stock options generally terminate 10 years from the date of grant. The Inducement Plan was amended by the board of directors on multiple occasions through January 2022 to increase the number of shares reserved for issuance to 3,000,000 shares. As of June 30, 2023, there were 409,508 shares available for future grants under the Inducement Plan.

A summary of the Company's stock option activity under the Inducement Plan for the six months ended June 30, 2023 is as follows:

	OUTSTANDING OPTIONS	WEIGHTED-AVERAGE EXERCISE PRICE	WEIGHTED-AVERAGE REMAINING CONTRACTUAL TERM (YEARS)	AGGREGATE INTRINSIC VALUE (IN THOUSANDS)
Outstanding as of December 31, 2022	2,333,525	$ 1.82	8.7	
Options granted	250,000	3.25		
Options forfeited	(3,125)	3.58		
Outstanding as of June 30, 2023	2,580,400	1.95	8.4	$ 405
Vested or expected to vest as of June 30, 2023	1,996,200	1.95	8.5	382
Exercisable as of June 30, 2023	675,671	1.97	8.1	59

As of June 30, 2023, there was $1,759,353 of total unrecognized compensation expense related to unvested options under the Inducement Plan that will be recognized over a weighted-average period of approximately 2.7 years. There

were no options exercised under the Inducement Plan during the six months ended June 30, 2023 or 2022. The total fair value of stock options which vested in the six months ended June 30, 2023 and 2022 was $312,314 and $20,002, respectively.

During 2021 and the six months ended June 30, 2022, the Company granted stock options to purchase an aggregate of 584,200 shares to certain newly hired employees under the Inducement Plan which options were subject to the same performance vesting conditions described above with respect to the stock options granted in January 2022 under the 2013 Plan. The maximum fair value of $825,353 associated with the performance-based options is excluded from the unrecognized compensation expense under the Inducement Plan as the completion of the performance milestones were not probable as of June 30, 2023. The Company will reevaluate at the end of each reporting period the probability that the performance conditions will be achieved and will record any adjustments to the compensation cost at that time.

The weighted-average fair value of the options granted under all equity incentive plans during the six months ended June 30, 2023 and 2022 was $2.00 per share and $0.78 per share, respectively, applying the Black-Scholes-Merton option pricing model utilizing the following weighted-average assumptions:

	Six Months Ended June 30,	
	2023	2022
Expected term	6.25 years	6.25 years
Expected volatility	81.26%	84.54%
Risk-free interest rate	3.54%	1.74%
Expected dividend yield	0%	0%

Stock-based compensation expense was classified on the statements of operations as follows for the three and six months ended June 30, 2023 and 2022:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Research and development expense	$ 229,422	$ 270,050	$ 467,353	$ 588,875
General and administrative expense	628,666	693,708	1,260,915	1,455,525
Total stock-based compensation expense	$ 858,088	$ 963,758	$ 1,728,268	$ 2,044,400

8. Income Taxes

The Company did not record any tax provision or benefit for the six months ended June 30, 2023 or 2022. The Company has provided a valuation allowance for the full amount of its net deferred tax assets since realization of any future benefit from deductible temporary differences, net operating loss carryforwards and research and development credits is not more-likely-than-not to be realized at June 30, 2023 and December 31, 2022.

9. License and Collaboration Agreements

Apollomics

In 2020, the Company entered into a collaboration and license agreement (the Agreement) with Apollomics (Hong Kong), Limited (Apollomics) for the development, manufacture and commercialization of products derived from two of the Company's compounds, GMI-1271 and GMI-1687 (the Products) for therapeutic and prophylactic uses (the Field) in China, Taiwan, Hong Kong and Macau (the Territory). Under the terms of the Agreement, the Company granted Apollomics:

- an exclusive license, with the right to sublicense, to develop, manufacture and have manufactured, distribute, market, promote, sell, have sold, offer for sale, import, label, package and otherwise the Products in the Field in the Territory; and
- a non-exclusive license to conduct preclinical research with respect to Products in the Field outside of the Territory for the purposes of developing such Products for use in the Territory.

In 2020, the Company and Apollomics also entered into a clinical supply agreement pursuant to which the Company will manufacture and supply the Products at agreed upon prices. Apollomics has the option to begin manufacture of the Products after appropriate material transfer requirements are met. The Company did not recognize any revenue under the clinical supplies agreement during the three and six months ended June 30, 2023 and 2022.

The Company evaluated the Agreement under the provisions of ASC 606 and identified two performance obligations under this revenue arrangement: the (i) delivery of functional licenses and (ii) manufacture and supply of the Products. The initial transaction price consists of a $9.0 million non-refundable up-front payment which was allocated to the delivered functional licenses and recognized in full as revenue in 2020 given that the performance obligation was satisfied upon inception. The Agreement contains various forms of variable consideration, including (i) up to $75.0 million in development milestones based on achievement of certain clinical and regulatory events, (ii) up to $105.0 million of sales-based commercial milestones based on achievement of certain annual net sales targets, (iii) sales-based royalties at specified percentages of net sales ranging from the high single digits to 15%, and (iv) manufacture and supply of clinical and commercial Products. The Company has fully constrained the development milestone consideration using the most likely amount method and will recognize that revenue when it is probable that recognition of revenue related to the milestone will not result in a significant reversal in amounts recognized in future periods, and as such have been excluded from the transaction price. In 2020, the Company received a non-refundable $1.0 million development milestone payment upon acceptance by Chinese regulatory authorities of a Phase 3 bridging study design to support registration in China and recognized this $1.0 million payment as revenue at that time. The Company did not recognize any milestone revenue under the Agreement for the six months ended June 30, 2023 or 2022.

The Company will recognize revenue related to the sales-based commercial and royalty milestones and royalties at the later of (i) when the related sales occur or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied), as they were determined to relate predominantly to the licenses granted to Apollomics and, therefore, have been excluded from the transaction price. Lastly, the Company has determined that the consideration for the manufacturing and supply is all variable and is fully constrained. Variable consideration allocated to manufacturing and supply will be recognized at a point in time when the Product is delivered and when the title to the Product is transferred to the customer pursuant to the agreement. The Company reassesses the transaction price in each reporting period and upon the occurrence of a change in circumstances or final resolution of any particular event.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Certain statements contained in this Quarterly Report on Form 10-Q may constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. The words or phrases "would be," "will allow," "intends to," "will likely result," "are expected to," "will continue," "is anticipated," "estimate," "project," or similar expressions, or the negative of such words or phrases, are intended to identify "forward-looking statements." We have based these forward-looking statements on our current expectations and projections about future events. Because such statements include risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. Factors that could cause or contribute to these differences include those below and elsewhere in this Quarterly Report on Form 10-Q, our Annual Report on Form 10-K, particularly in Part I – Item 1A, "Risk Factors," and our other filings with the Securities and Exchange Commission. Statements made herein are as of the date of the filing of this Form 10-Q with the Securities and Exchange Commission and should not be relied upon as of any subsequent date. Unless otherwise required by applicable law, we do not undertake, and we specifically disclaim, any obligation to update any forward-looking statements to reflect occurrences, developments, unanticipated events or circumstances after the date of such statement.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited financial statements and related notes that appear in Item 1 of this Quarterly Report on Form 10-Q and with our audited financial statements and related notes for the year ended December 31, 2022, which are included in our Annual Report on Form 10-K filed with the SEC on March 29, 2023.

Overview

We are a late-stage clinical development biotechnology company focused on improving the lives of people living with cancer and inflammatory diseases by leveraging the inhibition of carbohydrate interactions that occur on the surface of cells. We are developing a pipeline of proprietary glycomimetics, which are small molecules that mimic the structure of carbohydrates involved in important biological processes, to inhibit disease-related functions of carbohydrates such as the roles they play in inflammation, cancer and infection. We believe this represents an innovative approach to drug discovery to treat a wide range of diseases. We are focusing our efforts on drug candidates for diseases that we believe will qualify for orphan drug designation.

Our proprietary glycomimetics platform is based on our expertise in carbohydrate chemistry and our understanding of the role carbohydrates play in key biological processes. Most human proteins are modified by the addition of complex carbohydrate structures to the surface of such proteins, which affects the functions of the proteins and their interactions with other molecules. Our initial research and development efforts have focused on drug candidates targeting selectins, which are proteins that serve as adhesion molecules and bind to carbohydrates that are involved in the inflammatory component and progression of a wide range of diseases, including hematologic disorders, cancer and cardiovascular disease. For example, we believe that members of the selectin family play a key role in tumor metastasis and resistance to chemotherapy. Inhibiting specific carbohydrates from binding to selectins has long been viewed as a potentially attractive approach for therapeutic intervention. The ability to successfully develop drug-like carbohydrate compounds that inhibit binding with selectins, known as selectin antagonists, has historically been limited by their potency and the complexities of carbohydrate chemistry. We believe our expertise in the rational design of potent glycomimetic antagonists with drug-like properties and in carbohydrate chemistry enables us to identify highly effective selectin antagonists and other glycomimetics that may inhibit the disease-related functions of certain carbohydrates in order to develop novel drug candidates to address orphan diseases with high unmet medical need.

Our lead glycomimetic drug candidate, uproleselan, is a specific E-selectin antagonist that we are developing to be used in combination with chemotherapy to treat patients with acute myeloid leukemia, or AML, a life-threatening hematologic cancer, and potentially other hematologic cancers. In 2021, we completed enrollment of 388 patients in a randomized, double-blind, placebo-controlled Phase 3 pivotal clinical trial to evaluate uproleselan in individuals with relapsed/refractory AML, the design of which was based on guidance received from the U.S. Food and Drug Administration, or FDA.

In September 2022, we submitted a request to the FDA to amend the protocol for the trial to conduct an interim analysis and have the findings reviewed by the trial's Independent Data Monitoring Committee, or IDMC, as blinded pooled survival data showed patients living longer than expected based on the historical benchmarks used to design the study. The statistical plan agreed to with the FDA was for the IDMC to review efficacy and safety data at 80% of survival events, which was reached at the end of 2022. When designing the interim analysis, we amended the protocol to create the opportunity to achieve unblinding at approximately 80% of survival events while maintaining the statistical integrity of the final analysis should the IDMC recommend the study continue to the final overall events trigger. The interim analysis plan required a high statistical threshold to be met for the IDMC to recommend unblinding, reserving approximately 95% of the study's statistical power for the final analysis. In February 2023,the IDMC reviewed the interim utility analysis and recommended that the pivotal Phase 3 clinical trial continue to the originally planned final overall survival events trigger.

In June 2023, the FDA cleared the addition of a protocol amendment to our pivotal Phase 3 study to allow conduct of a time-based analysis of the primary endpoint of overall survival to be conducted after a defined cutoff date, if the 295 survival events originally planned for an event-driven analysis have not been observed by that date. Following the addition of a time-based analysis, we now expect to report topline results from the trial by the end of the second quarter of 2024. We are continuing our preparation for a potential filing of a new drug application, or NDA, with the FDA.

We have also entered into a Cooperative Research and Development Agreement, or CRADA, with the National Cancer Institute, or NCI, part of the National Institutes of Health, to conduct a Phase 2/3 randomized, controlled clinical trial testing the addition of uproleselan to a standard chemotherapy regimen. Enrollment of 267 patients in the Phase 2 portion was completed in December 2021. There will be a planned interim analysis that will evaluate event-free survival and whether the pre-specified threshold for continuing to Phase 3 has been met. The trial may also provide support for regulatory filings, if the results of the planned interim analysis are sufficiently positive.

In May 2023, the FDA agreed to our initial Pediatric Study Plan (iPSP). As part of the iPSP, the NCI has agreed to sponsor a Phase 1/2 dose escalation study to explore safety and preliminary activity of uproleselan plus fludarabine and high dose cytarabine (FLA) in pediatric AML patients after 2 or more prior therapies. The Children's Oncology Group will conduct this study. Enrollment in the Phase 1 portion is open and expected to be up to 18 patients.

Uproleselan is also being studied in multiple investigator-sponsored trials. The initial results from two investigator-sponsored trials evaluating safety and preliminary efficacy in frontline unfit and treated secondary AML populations not previously studied with uproleselan were selected for poster presentation at the 64th American Society of Hematology Annual Meeting held in December 2022.

In June 2023, the first pediatric patient was treated with uproleselan in an investigator-initiated, single-arm, multi-center Phase 1/2 study to assess safety and tolerability, as well as determine a recommended phase 2 dose (RP2D) of uproleselan plus myeloablative, busulfan-based, pre-transplant conditioning for treatment of AML. The Phase 2 study will further assess the preliminary uproleselan efficacy at the RP2D. The study will enroll up to 28 patients (Age ≥12 months and ≤ 30 years).

We have rationally designed an innovative antagonist of E-selectin, GMI-1687, that could be a subcutaneously administered treatment. Initially developed as a potential life-cycle extension to uproleselan, we believe that GMI-1687 could be developed to broaden the clinical usefulness of an E-selectin antagonist to conditions where outpatient treatment is preferred or required. In May 2022, we filed an investigational new drug application, or IND, for GMI-1687 as a potential treatment for vaso-occlusive crisis, or VOC, a common complication of sickle cell disease and received the "safe to proceed" letter from the FDA in June 2022. We expect to initiate a Phase 1a single-dose escalation trial of GMI-1687 in healthy volunteers in the third quarter of 2023.

We are advancing other preclinical-stage programs, including small-molecule glycomimetic compounds that inhibit the protein galectin-3, which we believe may have potential to be an orally administered treatment for fibrosis, cancer and cardiovascular disease. In March 2022, we selected a lead galectin drug candidate, GMI-2093, for evaluation in preclinical studies. We are evaluating options for the further development of GMI-2093 as a potential treatment for fibrosis and in oncology indications.

We have also designed GMI-1359, a drug candidate that simultaneously targets both E-selectin and a chemokine receptor known as CXCR4. In the fourth quarter of 2021, we terminated a Phase 1b trial of GMI-1359 in hormone receptor positive breast cancer patients whose tumors had spread to bone and have deactivated the existing GMI-1359 INDs as of August 2022. We are not currently developing GMI-1359, but are seeking a licensing partner to continue clinical development of this drug candidate.

We have financed our operations primarily through private placements of our securities, up-front and milestone payments under our license and collaboration agreements and the net proceeds from public offerings of common stock, including sales of common stock under at-the-market sales facilities with Cowen and Company LLC, or Cowen. We have no approved drugs currently available for sale, and substantially all of our revenue to date has been revenue from up-front and milestone payments under license and collaboration agreements.

Since inception, we have incurred significant operating losses. We had an accumulated deficit of $438.2 million as of June 30, 2023 and we expect to continue to incur significant expenses and operating losses over at least the next several years. Our net losses may fluctuate significantly from quarter to quarter and year to year, depending on the timing of our clinical trials and our expenditures on other research and development activities. We anticipate that our expenses will increase as we:

- initiate, conduct and complete our ongoing and planned clinical trials of uproleselan and GMI-1687, including fulfilling our funding and supply commitments related to the ongoing clinical trials of uproleselan;
- conduct NDA-enabling activities related to manufacture, toxicology and clinical pharmacology for our product candidates;
- manufacture additional uproleselan drug supplies for validation and prepare for commercialization;
- seek regulatory approvals for uproleselan or any other drug candidates that successfully complete clinical trials;
- ultimately establish a sales, marketing and distribution infrastructure and scale up external manufacturing capabilities to commercialize uproleselan or any other drug candidates for which we may obtain regulatory approval;
- maintain, expand and protect our intellectual property portfolio;
- maintain sufficient levels of insurance, including product liability and directors, officers and corporate liability insurance policies; and
- add personnel to support our drug development and potential future commercialization efforts.

To fund further operations, we will need to raise capital. We may obtain additional financing in the future through the issuance of our common stock, through other equity or debt financings, potentially including the use of our at-the-market sales facility with Cowen, through collaborations or partnerships with other companies or through the sale of potential royalty streams from a drug candidate. We may not be able to raise additional capital on terms acceptable to us, or at all, and any failure to raise capital as and when needed could compromise our ability to execute on our business plan. Although it is difficult to predict future liquidity requirements, we believe that our existing cash and cash equivalents will be sufficient to fund our operations into late fourth quarter of 2024 without giving effect to potential business development opportunities, such as upfront or milestone payments under license and collaboration agreements, or additional financing activities including the potential sale of common stock under our at-the-market sales facility or otherwise. However, our ability to successfully transition to profitability will be dependent upon achieving a level of revenues adequate to support our cost structure. We cannot assure you that we will ever be profitable or generate positive cash flow from operating activities.

Our Collaboration and License Agreements

Apollomics

In 2020, we entered into an exclusive collaboration and license agreement with Apollomics (Hong Kong) Limited, or Apollomics, for the development and commercialization of uproleselan and GMI-1687 in Mainland China, Hong Kong, Macau and Taiwan, also known as Greater China. Under the terms of the agreement, Apollomics will be responsible for clinical development and commercialization in Greater China. We will also collaborate with Apollomics to advance the preclinical and clinical development of GMI-1687. In 2020, we received an upfront cash payment of $9.0 million and also received a $1.0 million development milestone payment. There were no milestone payments from Apollomics during the six months ended June 30, 2023 or 2022. Subject to the terms of the agreement, we will be eligible to receive potential further milestone payments totaling approximately $179.0 million, as well as tiered royalties ranging from the high single digits to 15%, as a percentage of net sales. Apollomics will be responsible for all costs related to development, regulatory approvals, and commercialization activities for uproleselan and GMI-1687 in Greater China, and we and Apollomics expect to enter into clinical and commercial supply agreements with respect to our provision of uproleselan and GMI-1687 to Apollomics. We retain all rights for both compounds in the rest of the world.

In 2020, the China National Medical Products Administration, or NMPA, Center for Drug Evaluation, or CDE, granted IND approval for uproleselan (also known as APL-106), enabling the initiation of a Phase 1 pharmacokinetics and tolerability study and a planned Phase 3 bridging study of APL-106 in combination with chemotherapy in relapsed/refractory AML. In 2021, APL-106 was granted Breakthrough Therapy Designation from the China NMPA CDE for the treatment of relapsed/refractory AML. In 2021, Apollomics enrolled the first patient in the Phase 1 study and enrolled the first patient in the Phase 3 portion of the trial later in 2021.

In 2020, we also entered into a clinical supply agreement with Apollomics under which we will manufacture and supply uproleselan product to Apollomics at agreed upon prices. Apollomics has the option to begin manufacture after appropriate material transfer requirements are met. During the year ended December 31, 2021, we recognized $1.1 million in revenue from the sale of clinical supplies to Apollomics under the clinical supply agreement. There were no sales of clinical supplies to Apollomics during the six months ended June 30, 2023 or 2022.

Critical Accounting Policies and Significant Judgments 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, or GAAP. The preparation of these financial statements requires us to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities as of the dates of the balance sheets and the reported amounts of revenue and expenses during the reporting periods. In accordance with GAAP, we base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances at the time such estimates are made. Actual results may materially differ from our estimates and judgments under different assumptions or conditions. We periodically review our estimates in light of changes in circumstances, facts and experience. The effects of material revisions in estimates are reflected in our financial statements prospectively from the date of the change in estimate.

We define our critical accounting policies as those accounting principles generally accepted in the United States that require us to make subjective estimates and judgments about matters that are uncertain and are likely to have a material impact on our financial condition and results of operations, as well as the specific manner in which we apply those principles. For a description of our critical accounting policies and estimates, please see the disclosures in Part II, Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2022. There have not been any material changes to our critical accounting policies and estimates since December 31, 2022.

Components of Operating Results

Revenue

To date, we have not generated any revenue from the sale of our drug candidates and do not expect to generate any revenue from the sale of drugs in the near future. Substantially all of our historical revenue consisted of upfront and milestone payments under license and collaboration agreements.

Research and Development

Research and development expenses consist of expenses incurred in performing research and development activities, including compensation and benefits for full-time research and development employees, facilities expenses, overhead expenses, cost of laboratory supplies, clinical trial and related clinical manufacturing expenses, fees paid to CROs and other consultants and other outside expenses. Other preclinical research and platform programs include activities related to exploratory efforts, target validation, lead optimization for our earlier programs and our proprietary glycomimetics platform. Our research and development expenses during the periods presented in this report have related primarily to the development of uproleselan and GMI-1687.

We do not currently utilize a formal time allocation system to capture expenses on a project-by-project basis because we are organized and record expense by functional department and our employees may allocate time to more than one development project. Accordingly, we only allocate a portion of our research and development expenses by functional area and by drug candidate.

Research and development costs are expensed as incurred. Non-refundable advance payments for goods or services to be received in the future for use in research and development activities are deferred and capitalized. The capitalized amounts are expensed as the related goods are delivered or the services are performed.

Research and development activities are central to our business model. Drug 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. We expect our research and development expenses to increase over the next several years as we seek to progress uproleselan, GMI-1687 and our other drug candidates into and through clinical development. However, it is difficult to determine with certainty the duration and completion costs of our current or future preclinical studies and clinical trials of our drug candidates, or if, when or to what extent we will generate revenues from the commercialization and sale of any of our drug candidates that obtain regulatory approval. We may never succeed in achieving regulatory approval for any of our drug candidates.

The duration, costs and timing of clinical trials and development of our drug candidates will depend on a variety of factors that include:

- per patient trial costs;
- the number of patients that participate in the trials;
- the number of sites included in the trials;
- the countries in which the trial is conducted;
- the length of time required to enroll eligible patients;
- the number of doses that patients receive;
- the drop-out or discontinuation rates of patients;
- potential additional safety monitoring or other studies requested by regulatory agencies;
- the duration of patient follow-up; and
- the safety and efficacy profile of the drug candidate.

In addition, the probability of success for each drug candidate will depend on numerous factors, including competition, manufacturing capability and commercial viability. We will determine which programs to pursue and how much to fund each program in response to the scientific and clinical success of each drug candidate, as well as an assessment of each drug candidate's commercial potential.

General and Administrative

General and administrative expenses consist primarily of salaries and other related costs, including stock-based compensation, for personnel in executive, finance, accounting, business development and human resources functions. Other significant costs include facility costs not otherwise included in research and development expenses, legal fees relating to patent and corporate matters and fees for accounting and consulting services. We anticipate that our general and administrative expenses will increase in the future as we undertake commercialization efforts for uproleselan.

Interest Income

Interest income consists of interest income earned on our cash and cash equivalents.

Results of Operations for the Three and Six Months Ended June 30, 2023 and 2022

The following tables set forth our results of operations for the three and six months ended June 30, 2023 and 2022:

	Three Months Ended June 30,		Change	
(dollars in thousands)	**2023**	**2022**		
Revenue	$ —	$ 75	$ (75)	(100)%
Costs and expenses:				
Research and development expense	4,073	7,973	(3,900)	(49)%
General and administrative expense	4,857	5,455	(598)	(11)%
Total costs and expenses	8,930	13,428	(4,498)	(33)%
Loss from operations	(8,930)	(13,353)	4,423	33 %
Interest income	671	86	585	680 %
Net loss and comprehensive loss	$ (8,259)	$ (13,267)	$ 5,008	38 %

	Six Months Ended June 30,		Change	
(dollars in thousands)	**2023**	**2022**		
Revenue	$ —	$ 75	$ (75)	(100)%
Costs and expenses:				
Research and development expense	9,491	17,577	(8,086)	(46)%
General and administrative expense	10,380	10,511	(131)	(1)%
Total costs and expenses	19,871	28,088	(8,217)	(29)%
Loss from operations	(19,871)	(28,013)	8,142	29 %
Interest income	1,253	93	1,160	1,247 %
Net loss and comprehensive loss	$ (18,618)	$ (27,920)	$ 9,302	33 %

Revenue

We did not recognize any revenue during the three and six months ended June 30, 2023. During the three and six months ended June 30, 2022, we recognized $75,000, in revenue from agreements with Apollomics.

Research and Development Expense

The following tables summarize our research and development expense by functional area for the three and six months ended June 30, 2023 and 2022:

	Three Months Ended June 30,		Change	
(dollars in thousands)	**2023**	**2022**		
Clinical development	$ 924	$ 2,794	$ (1,870)	(67)%
Manufacturing and formulation	262	1,605	(1,343)	(84)%
Contract research services, consulting and other costs	440	322	118	37 %
Laboratory costs	374	468	(94)	(20)%
Personnel-related	1,844	2,514	(670)	(27)%
Stock-based compensation	229	270	(41)	(15)%
Research and development expense	$ 4,073	$ 7,973	$ (3,900)	(49)%

	Six Months Ended June 30,		Change	
(dollars in thousands)	**2023**	**2022**		
Clinical development	$ 2,300	$ 5,811	$ (3,511)	(60)%
Manufacturing and formulation	715	4,547	(3,832)	(84)%
Contract research services, consulting and other costs	1,081	711	370	52 %
Laboratory costs	801	966	(165)	(17)%
Personnel-related	4,127	4,953	(826)	(17)%
Stock-based compensation	467	589	(122)	(21)%
Research and development expense	$ 9,491	$ 17,577	$ (8,086)	(46)%

The following tables summarize our research and development expense by drug candidate for the three and six months ended June 30, 2023 and 2022:

	Three Months Ended June 30,		Change	
(dollars in thousands)	**2023**	**2022**		
Uproleselan	$ 1,478	$ 4,146	$ (2,668)	(64)%
GMI-1687	19	331	(312)	(94)%
Other research and development	503	712	(209)	(29)%
Personnel-related and stock-based compensation	2,073	2,784	(711)	(26)%
Research and development expense	$ 4,073	$ 7,973	$ (3,900)	(49)%

	Six Months Ended June 30,		Change	
(dollars in thousands)	**2023**	**2022**		
Uproleselan	$ 3,750	$ 9,431	$ (5,681)	(60)%
GMI-1687	55	1,143	(1,088)	(95)%
Other research and development	1,092	1,461	(369)	(25)%
Personnel-related and stock-based compensation	4,594	5,542	(948)	(17)%
Research and development expense	$ 9,491	$ 17,577	$ (8,086)	(46)%

Our research and development expense for the three and six months ended June 30, 2023 decreased by $3.9 million and $8.1 million, respectively, compared to the same periods ended June 30, 2022 primarily due to:

- decreased clinical development and manufacturing costs related to uproleselan, as patient enrollment ended in our Phase 3 clinical trial in November 2021 and in the NCI Phase 2/3 clinical trial in December 2021; and

- decreased personnel-related and stock-based compensation costs due to a workforce reduction in our research and discovery department in April 2022.

General and Administrative Expense

The following tables summarize the components of our general and administrative expense for the three and six months ended June 30, 2023 and 2022:

(dollars in thousands)	Three Months Ended June 30, 2023	2022	Change	
Personnel-related	$ 1,552	$ 1,599	$ (47)	(3)%
Stock-based compensation	629	694	(65)	(9)%
Legal, consulting and other professional expenses	2,393	2,889	(496)	(17)%
Other	283	273	10	4 %
General and administrative expense	$ 4,857	$ 5,455	$ (598)	(11)%

(dollars in thousands)	Six Months Ended June 30, 2023	2022	Change	
Personnel-related	$ 3,704	$ 3,594	$ 110	3 %
Stock-based compensation	1,261	1,456	(195)	(13)%
Legal, consulting and other professional expenses	4,846	4,994	(148)	(3)%
Other	569	467	102	22 %
General and administrative expense	$ 10,380	$ 10,511	$ (131)	(1)%

General and administrative expenses decreased by $0.6 million and $0.1 million, respectively, for the three and six months ended June 30, 2023 as compared to the same periods in 2022 primarily due to decreased legal, consulting and other professional expenses.

Interest Income

During the three and six months ended June 30, 2023, interest income increased by $0.6 million and $1.2 million, respectively, due to higher interest rates on cash and cash equivalents as compared to the same periods in 2022.

Liquidity and Capital Resources

Sources of Liquidity

We have historically financed our operations primarily through public offerings and private placements of our capital stock, including through our at-the-market sales facility with Cowen. As of June 30, 2023, we had $58.0 million in cash and cash equivalents.

In 2020, we entered into an at-the-market sales agreement, or the 2020 Sales Agreement, with Cowen and sold an aggregate of 4,117,363 shares of common stock through June 30, 2022 for net proceeds of $14.4 million.

In March 2022, we filed a shelf registration statement with the SEC, which was declared effective on April 22, 2022. On April 28, 2022, we terminated the 2020 Sales Agreement and entered into a new at-the-market sales agreement, or the 2022 Sales Agreement, with Cowen. Under the 2022 Sales Agreement, we may sell up to $100.0 million in shares of our common stock. During the year ended December 31, 2022, we sold 1,953,854 shares of common stock under the 2022 Sales Agreement at a weighted average price of $2.22 per share, for aggregate net proceeds of $4.2 million, after deducting commissions and offering expenses. During the six months ended June 30, 2023, we sold 9,822,930 shares of common stock under the 2022 Sales Agreement at a weighted average price of $3.01 per share, for aggregate net proceeds of $28.7 million, after deducting commissions and offering expenses. As of June 30, 2023, $66.0 million remained available to be sold under the 2022 Sales Agreement.

We may also receive payments under our existing license and collaboration agreements. However, our ability to earn additional milestone payments and potential royalty payments and their timing will be dependent upon the outcome of our counterparties' activities and is therefore uncertain at this time.

Funding Requirements

Our primary uses of capital are, and we expect will continue to be, compensation and related expenses, third-party clinical research and development services, laboratory and related supplies, clinical costs, legal and other regulatory expenses and general overhead costs.

As of June 30, 2023, our significant contractual obligations consisted solely of rent obligations under a non-cancelable lease for our current office space in Rockville, Maryland, which, as amended, has a term through January 2025. Our total remaining obligations under this lease as of June 30, 2023 were $1.4 million.

We have no other fixed long-term obligations and we do not have significant capital expenditure requirements.

We have also entered into various agreements for services with third-party vendors, including agreements to conduct clinical trials, to manufacture products, and for consulting and other contracted services. These agreements include cancellable terms and we accrue the costs of these agreements based on estimates of work completed to date.

The successful development of any of our drug candidates is highly uncertain. As such, at this time, we cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the remainder of the development of uproleselan or our other drug candidates. We are also unable to predict when, if ever, material net cash inflows will commence from uproleselan or our other drug candidates. This is due to the numerous risks and uncertainties associated with developing drugs, including the uncertainty of:

- successful enrollment in, and completion of, clinical trials;
- receipt of marketing approvals from applicable regulatory authorities;
- establishing commercial manufacturing capabilities or making arrangements with third-party manufacturers;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for drug candidates;
- launching commercial sales of drugs, if and when approved, whether alone or in collaboration with others; and
- obtaining and maintaining healthcare coverage and adequate reimbursement.

A change in the outcome of any of these variables with respect to the development of any of our drug candidates would significantly change the costs and timing associated with the development of that drug candidate. Because our drug candidates are in various stages of clinical and preclinical development and the outcome of these efforts is uncertain, we cannot estimate the actual amounts necessary to successfully complete the development and commercialization of our drug candidates or whether, or when, we may achieve profitability. Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity or debt financings and collaboration arrangements. Except for amounts that we may sell under our 2022 Sales Agreement with Cowen, and Apollomics' conditional obligations to make milestone and royalty payments to us under our existing license agreement, we do not have any committed external source of liquidity.

To the extent that we raise additional capital through the future sale of equity or debt, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our existing common stockholders. If we raise additional funds through the issuance of convertible debt securities, these securities could contain covenants that would restrict our operations.

We may require additional capital beyond our currently anticipated amounts. Additional capital may not be available on reasonable terms, or at all. If we raise additional funds through collaboration arrangements in the future, we may have to relinquish valuable rights to our drug candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay,

limit, reduce or terminate our drug development or future commercialization efforts or grant rights to develop and market drug candidates that we would otherwise prefer to develop and market ourselves.

Outlook

Based on our research and development plans and our timing expectations related to the progress of our programs, we expect that our existing cash and cash equivalents will enable us to fund our operating expenses and capital expenditure requirements into late fourth quarter of 2024. We have based this estimate on assumptions that may prove to be wrong, and we could use our capital resources sooner than we expect. Additionally, the process of testing drug candidates in clinical trials is costly, and the timing of progress in these trials is uncertain.

Cash Flows

The following is a summary of our cash flows for the six months ended June 30, 2023 and 2022:

	Six Months Ended June 30,	
(in thousands)	**2023**	**2022**
Net cash provided by (used in):		
Operating activities	$ (18,582)	$ (29,929)
Investing activities	(13)	(82)
Financing activities	28,761	—
Net change in cash and cash equivalents	$ 10,166	$ (30,011)

Operating Activities

Net cash used in operating activities for the six months ended June 30, 2023 and 2022 was primarily the result of ongoing clinical costs associated with our uproleselan clinical development programs and preparations for potential commercialization. These cash expenses were offset by non-cash expenses for stock-based compensation, lease expense and depreciation.

Investing Activities

Net cash used in investing activities for the six months ended June 30, 2023 and 2022 was for computer, office and laboratory equipment and was immaterial.

Financing Activities

Net cash provided by financing activities during the six months ended June 30, 2023 primarily consisted of the net proceeds received from sales of our common stock under our at-the-market facility with Cowen of $28.7 million. There were no financing activities for the six months ended June 30, 2022.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are a smaller reporting company as defined by Item 10 of Regulation S-K and are not required to provide the information otherwise required under this item.

ITEM 4. CONTROLS AND PROCEDURES

(a) *Evaluation of Disclosure Controls and Procedures*

The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, refers to controls and procedures that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that such

information is accumulated and communicated to a company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

In designing and evaluating our disclosure controls and procedures, management recognizes that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any system of controls 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; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate.

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of June 30, 2023, the end of the period covered by this Quarterly Report on Form 10-Q. Based upon such evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of such date at the reasonable assurance level.

(b) *Changes in Internal Controls Over Financial Reporting*

There have not been any changes in our internal controls over financial reporting during our fiscal quarter ended June 30, 2023 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

From time to time, we are subject to litigation and claims arising in the ordinary course of business. We are not currently a party to any material legal proceedings and we are not aware of any pending or threatened legal proceeding against us that we believe could have a material adverse effect on our business, operating results, cash flows or financial condition.

ITEM 1A. RISK FACTORS

Our business is subject to risks and events that, if they occur, could adversely affect our financial condition and results of operations and the trading price of our securities. Our risk factors as of the date of this quarterly report on Form 10-Q have not changed materially from those described in "Part I, Item 1A. Risk Factors" of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the SEC on March 29, 2023.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit No.	Document
3.1	Amended and Restated Certificate of Incorporation of the Registrant (incorporated herein by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-36177), filed with the Commission on January 15, 2014).
3.2	Amended and Restated Bylaws of the Registrant (incorporated herein by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K (File No. 001-36177), filed with the Commission on January 15, 2014).
4.1	Specimen stock certificate evidencing shares of Common Stock (incorporated herein by reference to Exhibit 4.2 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-191567), filed with the Commission on October 31, 2013).
10.1+*	Amended and Restated Non-Employee Director Compensation Policy.
10.2	Third Amendment to Lease, dated April 19, 2023, by and between the Registrant and ARE-Maryland No. 45, LLC (incorporated herein by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-36177), filed with the commission on April 21, 2023.
31.1*	Certification of Principal Executive Officer under Section 302 of the Sarbanes-Oxley Act.
31.2*	Certification of Principal Financial Officer under Section 302 of the Sarbanes-Oxley Act.
32.1**	Certifications of Principal Executive Officer and Principal Financial Officer under Section 906 of the Sarbanes-Oxley Act.
101.INS	XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the inline XBRL document)
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

\+ Indicates management contract or compensatory plan.

* Filed herewith.

** These certifications are being furnished solely to accompany this quarterly report pursuant to 18 U.S.C. Section 1350, and are not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and are not to be incorporated by reference into any filing of the registrant, whether made before or after the date hereof, regardless of any general incorporation language in 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.

GLYCOMIMETICS, INC.

Date: August 2, 2023

By: /s/ Brian M. Hahn
Brian M. Hahn
Senior Vice President and Chief Financial Officer
(On behalf of the Registrant and as Principal Financial Officer)

Exhibit 10.1

GLYCOMIMETICS, INC.

AMENDED AND RESTATED
NON-EMPLOYEE DIRECTOR COMPENSATION POLICY

Each member of the Board of Directors (the ***"Board"***) who is not also serving as an employee of GlycoMimetics, Inc. (the ***"Company"***) or any of its subsidiaries (each such member, an ***"Eligible Director"***) will receive the compensation described in this Amended and Restated Non-Employee Director Compensation Policy for his or her Board service. This policy may be amended at any time in the sole discretion of the Board or the Compensation Committee of the Board.

A. Annual Cash Compensation

The annual cash compensation amount set forth below is payable in equal quarterly installments, payable in arrears on the last day of each fiscal quarter in which the service occurred. If an Eligible Director joins the Board or a committee of the Board at a time other than effective as of the first day of a fiscal quarter, each annual retainer set forth below will be pro-rated based on days served in the applicable fiscal year, with the pro-rated amount paid for the first fiscal quarter in which the Eligible Director provides the service, and regular full quarterly payments thereafter. All annual cash fees are vested upon payment.

1. Annual Board Service Retainer:
   a. All Eligible Directors: $40,000
   b. Chairman of the Board Service Retainer (in addition to Eligible Director Service Retainer): $30,000

2. Annual Committee (Non-Chair) Member Service Retainer:
   a. Member of the Audit Committee: $9,000
   b. Member of the Compensation Committee: $6,000
   c. Member of the Nominating & Corporate Governance Committee: $4,000

3. Annual Committee Chair Service Retainer:
   a. Chairman of the Audit Committee: $18,000
   b. Chairman of the Compensation Committee: $12,000
   c. Chairman of the Nominating & Corporate Governance Committee: $7,500

B. Election to Receive Shares in Lieu of Cash Compensation

An Eligible Director may make an election to receive all or a portion of the annual cash compensation payable under Section A above in the form of unrestricted shares of the Company's common stock (the "***Common Stock***"), subject to executing and timely delivering an election form provided by the Company (a "***Retainer Share Election***"). To make a valid Retainer Share Election for annual cash compensation payable with respect to services to be provided in the third and fourth quarters of fiscal year 2023, such Retainer Share Election must be delivered to the Company by no later than June 30, 2023. Retainer Share Elections for fiscal year 2024 and beyond must be delivered to the Company before the start of the fiscal year to which the Retainer Share Election relates. A Retainer Share Election cannot be altered with respect to a fiscal year once the fiscal year begins and, once made, a Retainer Share Election will remain in effect for all subsequent fiscal years unless and until revised or revoked. A new Retainer Share Election that is timely submitted will supersede an existing Retainer Share Election as to Annual Cash Compensation payable with respect to future fiscal years. An Eligible Director may terminate a Retainer Share Election

by submitting notice to the Company's Secretary (or such other individual as the Company designates), which termination shall be effective with respect to the annual cash compensation earned beginning on the first calendar day of the next following fiscal year after such termination notice is submitted.

The number of shares of Common Stock to be issued in lieu of annual cash compensation shall be determined on a quarterly basis, on the last day of each fiscal quarter, by dividing the dollar amount of the portion of annual cash compensation to be paid for such quarter (determined as described above, including any pro-rated amounts for partial service during the quarter) that is subject to the Retainer Share Election by the closing price of a share of Common Stock on the last trading day of the fiscal quarter, rounded up to the nearest whole share. Shares shall be issued as soon as practicable, but in no event more than thirty (30) days, following the end of each fiscal quarter. All shares of Common Stock issued pursuant to a Retainer Share Election are fully vested upon issuance and will be issued as Other Awards under the Company's Amended and Restated 2013 Equity Incentive Plan, as may be amended from time to time, or any successor plan thereto (the "***Plan***").

C. Equity Compensation

The equity compensation set forth below will be granted under the Plan. All stock options granted under this policy will be nonstatutory stock options, with an exercise price per share equal to 100% of the Fair Market Value (as defined in the Plan) of the underlying Common Stock on the date of grant, and a term of ten years from the date of grant (subject to earlier termination in connection with a termination of service as provided in the Plan).

1. Initial Grant: On the date of an Eligible Director's initial election to the Board (or if such date is not a market trading day, the first market trading day thereafter), the Eligible Director will be automatically, and without further action by the Board or Compensation Committee of the Board, granted a stock option for 70,000 shares of Common Stock. The shares subject to each stock option will vest in three equal installments on the first, second and third anniversary of the date of grant, subject to the Eligible Director's Continuous Service (as defined in the Plan) at each vesting date.

2. Annual Grant: On the date of each Company's annual stockholder meeting, beginning with and including the 2023 annual stockholder meeting, each Eligible Director who continues to serve as a non-employee member of the Board will be automatically, and without further action by the Board or Compensation Committee of the Board, granted a stock option for 35,000 shares of Common Stock. The shares subject to each stock option will vest in full on the first anniversary of the applicable annual stockholder meeting, subject to the Eligible Director's Continuous Service (as defined in the Plan) as of such vesting date.

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Harout Semerjian, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended June 30, 2023 of GlycoMimetics, Inc. (the "registrant");

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.

Date: August 2, 2023

/s/ Harout Semerjian
Harout Semerjian
Chief Executive Officer
(principal executive officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Brian M. Hahn, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended June 30, 2023 of GlycoMimetics, Inc. (the "registrant");

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.

Date: August 2, 2023

/s/ Brian M. Hahn
Brian M. Hahn
Senior Vice President and Chief Financial Officer
(principal financial officer)

Exhibit 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

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Harout Semerjian, Chief Executive Officer of GlycoMimetics, Inc. (the "Company"), and Brian M. Hahn, Chief Financial Officer of the Company, each hereby certifies that, to the best of his knowledge:

1. The Company's Quarterly Report on Form 10-Q for the period ended June 30, 2023, to which this Certification is attached as Exhibit 32.1 (the "Periodic Report"), fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2. The information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

IN WITNESS WHEREOF, the undersigned have set their hands hereto as of the 2nd day of August 2023.

/s/ Harout Semerjian	/s/ Brian M. Hahn
Harout Semerjian	Brian M. Hahn
Chief Executive Officer	Senior Vice President and Chief Financial Officer

* This certification accompanies the Periodic Report to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of GlycoMimetics, Inc. under the Securities Act of 1933, as amended, or the Exchange Act (whether made before or after the date of the Periodic Report), irrespective of any general incorporation language contained in such filing.