UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of report (Date of earliest event reported): February 23, 2023

Generation Bio Co.

(Exact Name of Registrant as Specified in Charter)

	Delaware (State or Other Jurisdiction of Incorporation)	001-39319 (Commission File Number)	81-4301284 (IRS Employer Identification No.)				
	301 Binney Street Cambridge, MA	U Company of the Comp					
	(Address of Principal Executive Office	es)	(Zip Code)				
	Registrant's telepl	hone number, including area coo	le: (617) 655-7500				
	(Former Nam	Not applicable ne or Former Address, if Changed Since	Last Report)				
	eck the appropriate box below if the Form strant under any of the following provisio						
	Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)						
	Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)						
	Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))						
	Pre-commencement communications pu	ursuant to Rule 13e-4(c) under the	Exchange Act (17 CFR 240.13e-4(c))				
Sec	urities registered pursuant to Section 12(b) of the Act:					
C	Title of each class ommon Stock, \$0.0001 par value per share	Trading Symbol(s) GBIO	Name of each exchange on which registered Nasdaq Global Select Market				
	icate by check mark whether the registrant 933 (§230.405 of this chapter) or Rule 12		as defined in Rule 405 of the Securities Act et of 1934 (§240.12b-2 of this chapter).				
			Emerging growth company $\ \Box$				
	complying with any new or revised financ		ected not to use the extended transition period pursuant to Section 13(a) of the Exchange				

Item 2.02 Results of Operations and Financial Condition.

On February 23, 2023, Generation Bio Co. (the "Company") issued a press release announcing the Company's financial results for the quarter and year ended December 31, 2022. A copy of this press release is furnished as Exhibit 99.1 and is incorporated herein by reference.

The information in this Item 2.02 on Form 8-K (including Exhibit 99.1 attached hereto) is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference into any filing by the Company, under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such filling.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit

No. Description

99.1 Press Release Issued by Generation Bio Co. on February 23, 2023.

104 Cover Page Interactive Data File (embedded within the Inline XBRL document).

SIGNATURES

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

Date: February 23, 2023

GENERATION BIO CO.

By: /s/ Geoff McDonough

Name: Geoff McDonough, M.D.

Title: President and Chief Executive Officer



Generation Bio Outlines 2023 Strategic Priorities and Reports Fourth Quarter and Full Year 2022 Financial Results

- Company expects to announce data for Factor VIII expression in non-human primates in 2023
- Strong cash balance of \$279.1M provides expected runway into 2025

CAMBRIDGE, MASS., Feb. 23, 2023 -- Generation Bio Co. (Nasdaq: GBIO), a biotechnology company innovating genetic medicines for people living with rare and prevalent diseases, outlined its strategic priorities for 2023 and reported fourth quarter and full year 2022 financial results.

"Generation Bio is aiming to be the new modality leader for non-viral DNA therapeutics. In the past year, we've made significant progress across our non-viral DNA therapeutics platform, most importantly in optimizing the biodistribution profile of our cell-targeted lipid nanoparticle (ctLNP) delivery system," said Geoff McDonough, M.D., president and chief executive officer of Generation Bio. "We are currently engineering novel ctLNPs with two distinct biodistribution profiles that could each enable a broad pipeline of liver disease programs, as well as programs for other tissues and cell types. Our focus for 2023 is to achieve proof-of-concept for either of these ctLNP types, which could unlock tremendous value for our pipeline."

2023 Strategic Priorities

Generation Bio expects to demonstrate Factor VIII expression in non-human primates (NHPs) with a novel ctLNP that supports the subsequent nomination of a development candidate for the company's lead program in hemophilia A.

The company is currently pursuing development of two types of ctLNP delivery systems. The first is a GalNAc-conjugated ctLNP designed for highly specific uptake by hepatocytes. Traditional, non-targeted LNPs are evenly distributed to the liver and the spleen, triggering immune system activation with DNA cargo. A liver-directed ctLNP could minimize immune stimulation by reducing distribution to the spleen and delivering DNA cargo more directly to hepatocytes. Beyond application to a new therapy for hemophilia A, these ctLNPs could also potentially be used in treatments for many other rare and prevalent liver diseases.

Generation Bio is also developing a "stealth" LNP, designed to avoid clearance by the spleen and liver, enabling targeting to extrahepatic tissues by conjugating a tissue- or cell-specific ligand to the LNP. This type of ctLNP could extend the reach of nucleic acid therapeutics to new tissues and cell types beyond the liver. In 2023, Generation Bio expects to demonstrate proof-of-concept for re-targeting its stealth LNP system to reach immune cells and plans to evaluate the potential to pursue non-liver programs independently and/or with one or more partners.

Fourth Quarter and Full Year 2022 Financial Results



- **Cash Position**: Cash, cash equivalents and marketable securities were \$279.1 million as of December 31, 2022, compared with \$375.1 million in cash, cash equivalents, and marketable securities as of December 31, 2021. The company continues to believe that its cash position will fund its operating plan into 2025.
- **R&D** Expenses: Research and development (R&D) expenses were \$21.6 million for the quarter ended December 31, 2022, and \$96.7 million for the year ended December 31, 2022, compared to \$21.8 million for the quarter ended December 31, 2021, and \$85.2 million for the year ended December 31, 2021.
- **G&A** Expenses: General and administrative (G&A) expenses were \$13.1 million for the quarter ended December 31, 2022, and \$44.5 million for the year ended December 31, 2022, compared to \$9.1 million for the quarter ended December 31, 2021, and \$33.9 million for the year ended December 31, 2021.
- **Net Loss:** Net loss was \$32.4 million, or \$0.55 basic and diluted net loss per share, for the quarter ended December 31, 2022, and \$136.6 million, or \$2.35 basic and diluted net loss per share, for the year ended December 31, 2022, compared to a net loss of \$30.9 million, or \$0.54 basic and diluted net loss per share, for the quarter ended December 31, 2021 and \$119.2 million, or \$2.12 basic and diluted net loss per share, for the year ended December 31, 2021.

About Generation Bio

Generation Bio is innovating genetic medicines to provide durable, redosable treatments for people living with rare and prevalent diseases. The company's non-viral genetic medicine platform incorporates a novel DNA construct called closed-ended DNA, or ceDNA; a unique cell-targeted lipid nanoparticle delivery system, or ctLNP; and a highly scalable capsid-free manufacturing process that uses proprietary cell-free rapid enzymatic synthesis, or RES, to produce ceDNA. The platform is designed to enable multi-year durability from a single dose, to deliver large genetic payloads, including multiple genes, to specific tissues and cell types, and to allow titration and redosing to adjust or extend expression levels in each patient. RES has the potential to expand Generation Bio's manufacturing scale to hundreds of millions of doses to support its mission to extend the reach of genetic medicine to more people, living with more diseases, around the world.

For more information, please visit www.generationbio.com.

Forward-Looking Statements

Any statements in this press release about future expectations, plans and prospects for the company, including statements about the company's strategic plans or objectives, cash resources, technology platform, research and clinical development plans, and preclinical data and other statements containing the words "believes," "anticipates," "plans," "expects," and similar expressions, constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including: uncertainties inherent in the identification and development of product candidates, including the conduct of



research activities, the initiation and completion of preclinical studies and clinical trials and clinical development of the company's product candidates; uncertainties as to the availability and timing of results from preclinical studies and clinical trials; whether results from earlier preclinical studies will be predictive of the results of later preclinical studies and clinical trials; uncertainties regarding the RES manufacturing process; uncertainties regarding the company's ability to assign or sublease its manufacturing property; challenges in the manufacture of genetic medicine products; whether the company's cash resources are sufficient to fund the company's operating expenses and capital expenditure requirements for the period anticipated; the impact of the COVID-19 pandemic on the company's business and operations; expectations for regulatory approvals to conduct trials or to market products; as well as the other risks and uncertainties set forth in the "Risk Factors" section of our most recent annual report on Form 10-K and quarterly report on Form 10-Q, which are on file with the Securities and Exchange Commission, and in subsequent filings the company may make with the Securities and Exchange Commission. In addition, the forward-looking statements included in this press release represent the company's views as of the date hereof. The company anticipates that subsequent events and developments will cause the company's views to change. However, while the company may elect to update these forward-looking statements at some point in the future, the company specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing the company's views as of any date subsequent to the date on which they were made.

Investors and Media Contact

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GENERATION BIO CO. CONSOLIDATED BALANCE SHEET DATA (Unaudited) (In thousands)

Earnings Release Balance Sheet	Decen	nber 31, 2022	December 31, 2021	
Cash, cash equivalents and marketable securities	\$	279,091	\$	375,145
Working capital		267,866		360,378
Total assets		376,264		476,771
Total stockholders' equity		282,493		381,746

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GENERATION BIO CO. CONSOLIDATED STATEMENTS OF OPERATIONS (Unaudited)

(in thousands, except share and per share data)

	Three Months Ended December 31,			Year Ended December 31,		
		2022	2021	2022	2021	
Operating expenses:						
Research and development	\$	21,607 \$	21,847 \$	96,718 \$	85,247	
General and administrative		13,081	9,099	44,464	33,854	
Total operating expenses		34,688	30,946	141,182	119,101	
Loss from operations		(34,688)	(30,946)	(141,182)	(119,101)	
Other income (expense):						
Other income (expense) and interest income,						
net		2,283	3	4,543	(50)	
Net loss and net loss attributable to common						
stockholders	\$	(32,405)\$	(30,943)\$	(136,639)\$	(119,151)	
Net loss per share attributable to common						
stockholders, basic and diluted	\$	(0.55)\$	(0.54) \$	(2.35)\$	(2.12)	
Weighted average common shares outstanding,				=0.444.000		
basic and diluted	=	59,407,296	56,881,041	58,114,893	56,295,409	
Comprehensive loss:						
Net loss	\$	(32,405)\$	(30,943)\$	(136,639)\$	(119,151)	
Other comprehensive income:	4	(5=, 105) \$	(30,3.3) \$	(130,033) \$	(110,101)	
Unrealized gains (losses) on marketable						
securities		219	(1)	(83)	(9)	
Comprehensive loss	\$	(32,186) \$		<u> </u>		