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 Act of 1934

Date of Report (Date of earliest event reported): May 7, 2020

MAGENTA THERAPEUTICS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**001-38541**	**81-0724163**
(State or other jurisdiction of incorporation or organization)	**(Commission File Number)**	**(I.R.S. Employer Identification Number)**

100 Technology Square **Cambridge, Massachusetts**	**02139**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (857) 242-0170

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ 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 pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13d-4(c))

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	**MGTA**	**The Nasdaq Global Market**

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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. ☐

Item 2.02 Results of Operations and Financial Condition.

On May 7, 2020, Magenta Therapeutics, Inc. announced its financial results for the quarter ended March 31, 2020. The full text of the press release issued in connection with the announcement is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information in this Form 8-K (including Exhibit 99.1) 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 in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits:

The following exhibit relating to Item 2.02 shall be deemed furnished, and not filed:

99.1 Press Release dated May 7, 2020.

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 hereunto duly authorized.

MAGENTA THERAPEUTICS, INC.

Date: May 7, 2020

By: /s/ Jason Gardner

Title: President and Chief Executive Officer

Exhibit 99.1

Magenta Therapeutics Reports Recent Business Highlights and First Quarter Financial Results

– MGTA-117 ADC clinical candidate for immune and blood system reset has demonstrated broad therapeutic index; on track for initial clinical data in 2021 –

– Announced research and clinical collaboration with AVROBIO to evaluate potential utility of MGTA-117 antibody-drug conjugate (ADC) as conditioning regimen in gene therapy setting –

– Completed dosing in Phase 1 MGTA-145 trial, demonstrating rapid, same-day first line stem cell mobilization and collection; met all primary and secondary endpoints; potential for initial Phase 2 data in 2020 –

– Phase 2 trial of MGTA-456 in inherited metabolic disorders experiencing COVID-19-related enrollment delay; Phase 2 trial of MGTA-456 in blood cancers expected to complete enrollment in 2020 –

– Ended quarter with $130.4 million in cash, cash equivalents and marketable securities, and cash runway extended to 1Q 2022 –

– Company to hold investor conference call at 8:00 a.m. ET —

Cambridge, MA – May 7, 2020 – Magenta Therapeutics (Nasdaq: MGTA), a clinical-stage biotechnology company developing novel medicines to bring the curative power of immune reset to more patients, today reported recent business highlights and financial results for the first quarter ended March 31, 2020.

“The first quarter of 2020 has shown Magenta to be well-positioned to advance our programs and to weather unexpected obstacles. Magenta continues to execute and progress our pipeline, and we remain committed wholeheartedly to our patients, their families, our employees and our business partners,” said Jason Gardner, D.Phil., President and Chief Executive Officer, Magenta. “In this first quarter, Magenta has showcased significant clinical and preclinical results, and we are building on these results to advance quickly.”

Recent Business Highlights:

MGTA-117 lead clinical candidate for conditioning for stem cell transplant and gene therapy demonstrates broad therapeutic index; advancing MGTA-117 to deliver initial clinical data in 2021. Data presented at the Transplant and Cellular Therapies (TCT) conference in February 2020 demonstrated that MGTA-117's optimized linker payload resulted in potent depletion of stem and progenitor cells with an improved therapeutic index of 30 (range for approved ADCs at this stage of development has been two- to six- fold). The ADC is advancing in GMP manufacture. Magenta will also present data in an oral presentation at the upcoming American Society of Gene & Cell Therapy (ASGCT) annual conference, to be held May 12-15, demonstrating that a single dose of CD117-ADC enables hematopoietic stem cell (HSC)-based gene therapy in non-human primates.

The Company is scaling up manufacturing of MGTA-117 and expects to complete investigational new drug (IND)-enabling studies in 2020. This program is on track to complete GLP toxicology studies and progress GMP manufacturing in 2020, as well as to deliver initial clinical data in 2021.

Announced research and clinical collaboration agreement with AVROBIO to evaluate potential utility of MGTA-117 targeted ADC for conditioning patients with one or more AVROBIO lentiviral gene therapies. The collaboration will combine Magenta's leadership in ADC-based conditioning with AVROBIO's expertise in lentiviral gene therapies and will further the two companies' shared mission to allow patients to live free from disease. Under the collaboration, Magenta and AVROBIO will jointly evaluate MGTA-117 in conjunction with one or more of AVROBIO's investigational gene therapies. Magenta will retain all commercial rights to MGTA-117. AVROBIO will retain all commercial rights to its gene therapies and will be responsible for the clinical trial costs related to the evaluation of MGTA-117 with AVROBIO's gene therapies.

The Phase 1 trial of MGTA-145, Magenta's first-line stem cell mobilization therapy, met all primary and secondary endpoints, demonstrating rapid, same-day first line stem cell mobilization and collection in healthy volunteers, and enrollment in the renal pharmacokinetic study is complete. At TCT in February, Magenta presented data showing MGTA-145 was safe and well tolerated as a single agent and in combination with plerixafor and demonstrated rapid, same-day mobilization and collection of sufficient numbers of stem cells to enable a successful transplant.

Based on the results of the Phase 1 study, Magenta intends to initiate multiple Phase 2 trials of MGTA-145 which may be staggered over the course of this year due to clinical trial impacts from COVID-19. The Phase 2 trials will include both allogeneic and autologous transplant settings and will evaluate mobilization and collection of functional cells and engraftment of the cells after transplant to rebuild the immune system. There is potential for the Company to present initial Phase 2 data on MGTA-145 in 2020.

At the upcoming ASGCT conference, Magenta will present two sets of preclinical data on MGTA-145. In one study, MGTA-145 plus plerixafor was shown to be a rapid, reliable, efficient and G-CSF-free method to obtain high numbers of HSCs, including HSCs that were gene-modified with robust and durable engraftment, which could be used to improve HSC collection and autologous gene therapy outcomes for a variety of therapeutic indications. In a separate preclinical study, MGTA-145 plus plerixafor was shown to serve as an efficient same-day mobilization regimen for *in vivo* gene therapy of HSCs, which could be applicable in patients with sickle cell disease and other genetic disorders.

IND-enabling work on CD45-ADC for immune system reset will progress in 2020, with lead antibody identified. Magenta is developing targeted ADCs designed to precisely remove the disease-causing cells in the body without the need for chemotherapy or radiation. Magenta's CD45-ADC program targets CD45, a protein expressed on immune cells and stem cells and is designed to remove the cells that cause autoimmune diseases in order to enable curative immune reset.

Enrollment timelines for the MGTA-456 Phase 2 trial in inherited metabolic disorders have been shifted into 2021, due to COVID-19-related impacts. The trial remains open with seven of 12 patients enrolled and continued longer term follow-up on these patients will be conducted. Sixteen patients have been enrolled in the Phase 2 trial of MGTA-456 in patients with blood cancers at the University of Minnesota, and this trial is currently expected to complete enrollment in 2020.

Expanded senior leadership team. In February 2020, Magenta announced it had expanded its senior leadership with two new strategic hires, Kristen Stants as Chief People Officer, and Li Malmberg, Ph.D., as Senior Vice President, Head of Manufacturing. In April 2020, Magenta announced the promotion of John Davis Jr., M.D., M.P.H., M.S. to Head of Research and Development and Chief Medical Officer.

COVID-19-related operational changes. Magenta has taken important steps to help ensure the safety of employees and their families and to reduce the spread of COVID-19 in the Cambridge community. In early March, Magenta created an internal, cross-functional COVID-19 response team, focused on employee safety and business continuity, to monitor closely the evolving situation and advise on the Company's response. Magenta has established a work-from-home policy for all employees, other than those performing or supporting

business-critical laboratory-based experiments, such as certain members of the Company's laboratory and facilities staff. For those employees, Magenta has implemented stringent safety measures designed to comply with applicable federal, state and local guidelines instituted in response to the COVID-19 pandemic. Magenta has also maintained frequent communication with its partners and clinical sites as the COVID-19 situation has progressed.

Financial Results:

Cash Position: Cash, cash equivalents and marketable securities as of March 31, 2020, were $130.4 million, compared to $145.7 million on December 31, 2019. Magenta anticipates that its cash, cash equivalents and marketable securities will be sufficient to fund operations and capital expenditures into the first quarter of 2022.

Research and Development Expenses: Research and development expenses were $14.0 million in the first quarter of 2020, compared to $10.5 million in the first quarter of 2019. The increase was driven primarily by investments in manufacturing related to our conditioning programs and MGTA-456, increases in personnel to support the Company's operations as a clinical-stage company and certain clinical activities for MGTA-145.

General and Administrative Expenses: General and administrative expenses were $7.3 million for the first quarter of 2020, compared to $5.8 million for the first quarter of 2019. The increase was primarily due to an increase in personnel and facilities associated with the growth of the Company, in addition to consulting work related to pre-commercialization activities.

Net Loss: Net loss was $20.0 million for the first quarter of 2020, compared to net loss of $14.8 million for the first quarter of 2019.

Conference Call Details:

To access the call, please reference the dial-in details below. In addition, a live webcast will be available, and a playback of the call will be available on the Magenta Therapeutics website at https://investor.magentatx.com/events-and-presentations for 90 days following the call.

Conference ID number: 9594495
U.S./CANADA: (866) 688-5232; (409) 217-8328
UK (London): 08000288438
Switzerland: 0225803283
Australia: 1800005989

About Magenta Therapeutics

Magenta Therapeutics is a clinical-stage biotechnology company developing medicines to bring the curative power of immune system reset through stem cell transplant to more patients with autoimmune diseases, genetic diseases and blood cancers. Magenta is combining leadership in stem cell biology and biotherapeutics development with clinical and regulatory expertise, a unique business model and broad networks in the stem cell transplant world to revolutionize immune reset for more patients

Magenta is based in Cambridge, Mass. For more information, please visit www.magentatx.com.

Follow Magenta on Twitter: @magentatx.

Forward-Looking Statement

This press release may contain forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995 and other federal securities laws, including express or implied statements regarding Magenta's future expectations, plans and prospects, including, without limitation, statements regarding expectations and plans for presenting pre-clinical and clinical data, projections regarding future revenues and financing performance, our long-term growth, cash, cash equivalents and marketable securities, the anticipated timing of our clinical trials and regulatory filings, the development of our product candidates and advancement of our preclinical programs, statements regarding the research and clinical collaboration agreement between Magenta and AVROBIO Inc., including the timing, progress and success of the collaboration contemplated under the agreement, the successful evaluation MGTA-117 in conjunction with one or more of AVROBIO's investigational gene therapies under the agreement, the anticipated cost allocation and other commercial terms under the agreement, Magenta's strategy and business plan, as well as the future development, manufacture and commercialization between AVROBIO and Magenta, as well as other statements containing the words "anticipate," "believe," "continue," "could," "endeavor," "estimate," "expect," "intend," "may," "might," "plan," "potential," "predict," "project," "seek," "should," "target," "will" or "would" and similar expressions that constitute forward-looking statements under the Private Securities Litigation Reform Act of 1995. The express or implied forward-looking statements included in this press release are only predictions and are subject to a number of risks, uncertainties and assumptions, including, without limitation: uncertainties inherent in clinical studies and in the availability and timing of data from ongoing clinical studies; whether interim results from a clinical trial will be predictive of the final results of the trial;

whether results from preclinical studies or earlier clinical studies will be predictive of the results of future trials; the expected timing of submissions for regulatory approval or review by governmental authorities, including review under accelerated approval processes; orphan drug designation eligibility; regulatory approvals to conduct trials or to market products; whether Magenta's cash resources will be sufficient to fund Magenta's foreseeable and unforeseeable operating expenses and capital expenditure requirements; risks, uncertainties and assumptions regarding the impact of the COVID-19 pandemic on Magenta's business, operations, strategy, goals and anticipated timelines, Magenta's ongoing and planned preclinical activities, Magenta's ability to initiate, enroll, conduct or complete ongoing and planned clinical trials, Magenta's timelines for regulatory submissions and Magenta's financial position; and other risks concerning Magenta's programs and operations are described in additional detail in its Annual Report on Form 10-K filed on March 3, 2020, its Quarterly Reports on Form 10-Q and its other filings made with the Securities and Exchange Commission from time to time. Although Magenta's forward-looking statements reflect the good faith judgment of its management, these statements are based only on facts and factors currently known by Magenta. As a result, you are cautioned not to rely on these forward-looking statements. Any forward-looking statement made in this press release speaks only as of the date on which it is made. Magenta undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future developments or otherwise.

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Magenta Therapeutics, Inc.

STATEMENTS OF OPERATIONS
(unaudited)
(In thousands, except share and per share data)

	Three Months Ended March 31,	
	2020	2019
Revenue	$ —	$ —
Operating expenses:		
Research and development	13,963	10,537
General and administrative	7,281	5,813
Total operating expenses	21,244	16,350
Loss from operations	(21,244)	(16,350)
Interest and other income, net	1,233	1,516
Net loss	$ (20,011)	$ (14,834)
Net loss per share, basic and diluted	$ (0.51)	$ (0.44)
Weighted average common shares outstanding, basic and diluted	39,364,437	33,422,278

BALANCE SHEET DATA
(unaudited)
(In thousands)

	March 31, 2020	December 31, 2019
Cash, cash equivalents and marketable securities	$ 130,406	$ 145,729
Working capital	120,429	135,728
Total assets	144,441	161,514
Stockholders' equity	125,401	141,193