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): May 12, 2022

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

Delaware	**001-40604**	**45-4915810**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

329 Oyster Point Blvd. 3rd Floor
South San Francisco, California 94080
(Address of principal executive offices, including Zip Code)

Registrant's telephone number, including area code: (415) 529-5055

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 240.13e-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, par value $0.0001 per share	IMGO	The Nasdaq Stock Market LLC

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 12, 2022, Imago BioSciences, Inc. issued a press release announcing its financial results as of and for the quarter ended March 31, 2022. The press release is being furnished as Exhibit 99.1.

The information in this Item 2.02 of this Form 8-K and the Exhibit 99.1 attached hereto shall not be deemed "filed" for purpose of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that Section, or incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits.
(d) Exhibits.

Exhibit	Description
99.1	Press Release dated May 12, 2022
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

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.

IMAGO BIOSCIENCES, INC.

Date: May 12, 2022

By: /s/ Hugh Y. Rienhoff, Jr., M.D.
Hugh Y. Rienhoff, Jr., M.D.
Chief Executive Officer

Exhibit 99.1

Imago BioSciences Reports First Quarter 2022 Financial Results and Provides Recent Business Updates

- Completed Type C meeting with FDA to align on study design, study population, control group and primary endpoint for planned Phase 3 essential thrombocythemia (ET) study

- Enrollment completed in Phase 2 trial of bomedemstat for treatment of ET

- Additional data from Phase 2 trial of bomedemstat for treatment of ET and myelofibrosis (MF) to be presented at European Hematology Association (EHA) Congress

SOUTH SAN FRANCISCO, Calif. – May 12, 2022 – Imago BioSciences, Inc. ("Imago") (Nasdaq: IMGO), a clinical stage biopharmaceutical company discovering and developing new medicines for the treatment of myeloproliferative neoplasms (MPNs) and other bone marrow diseases, today reported financial results for the first quarter ended March 31, 2022 and provided a corporate update.

"I am delighted by the clinical progress Imago has made, which was underscored by the completion of enrollment in the Phase 2 trial of bomedemstat for treatment of ET as well as positive interim data from our two Phase 2 trials in ET and MF presented at ASH 2021 with additional data from these trials to be presented at the upcoming EHA congress in June. In addition, the Fred Hutchinson Cancer Research Center has initiated dosing in a Phase 1/2 combination study of bomedemstat and atezolizumab for the treatment of small cell lung cancer and we remain on track to initiate our second combination study in the first half of 2022, which is a Phase 2 trial of bomedemstat and ruxolitinib for the treatment of MF," said Hugh Young Rienhoff, Jr., M.D, Chief Executive Officer of Imago BioSciences. "As we continue to assemble a seasoned leadership team, I am pleased to have had Mike join as Chief Operating and Business Officer, as Laura Eichorn transitioned from the Chief Operating Officer role into the Chief Financial Officer on a permanent basis. Looking ahead, Imago expects to initiate a registrational study of bomedemstat for the treatment of ET, subject to an end-of-Phase 2 meeting with the U.S. Food and Drug Administration (FDA), around the end of 2022."

First Quarter 2022 Highlights

- **Announced results of preliminary discussions with the U.S. Food and Drug Administration (FDA), about key trial design parameters for a registration-directed Phase 3 program of bomedemstat for the treatment of ET**. Based on these discussions, we believe a two-arm trial comparing bomedemstat to best available therapy may provide the basis for regulatory approval for the second-line treatment of ET. Subject to final review of the Phase 3 protocol, we have alignment on the study population of patients with ET, *viz*., those patients who are intolerant of or resistant to hydroxyurea, the agents in the control arm and the composite primary endpoint of durable normalization of platelet and white counts and

hemostasis in the absence of progression. Based on completion of enrollment for the Phase 2 clinical trial in ET, and subsequent End of Phase 2 meeting, we expect to submit a final protocol for a registrational Phase 3 pivotal program in 2022, with the first patient dosed thereafter. With positive results from the pivotal clinical program, we would expect to submit applications for regulatory approval with the FDA and the EMA for ET.

- **Announced completion of enrollment in the Phase 2 trial of bomedemstat for the treatment of ET with 73 patients enrolled on May 3, 2022.** To be enrolled in the Phase 2 ET trial, patients had to be intolerant of, or inadequately managed by treatment with one standard-of-care drug, generally hydroxyurea, and also had one or more high-risk prognostic factors, such as being over 60 years of age or having a history of clotting or bleeding events. Primary endpoints of this clinical trial are safety and tolerability, as well as the reduction of platelet count to ≤400 x 10^9/L, in the absence of any clotting or bleeding events. We are also evaluating several exploratory endpoints, including reduction in mutant allele frequency and prevention of transformation to MF or acute myeloid leukemia. In this Phase 2 trial, as well as our Phase 2 MF trial, we have used platelet count as a biomarker of bomedemstat activity on megakaryocyte function, allowing for individualized dosing. Patients from this trial are eligible to transition into an ongoing Phase 2 Extension Study initiated in 2021 enabling the collection of long-term safety and pharmacodynamic data.

- **Expanded Executive Leadership.** In March 2022, Imago announced the appointments of Michael Arenberg as Chief Operating and Business Officer and Laura G. Eichorn as our Chief Financial Officer. Mr. Arenberg succeeds Ms. Eichorn as COO and is charged with leading strategic operations, investor relations, commercial development and business development of Imago. Ms. Eichorn has transitioned from interim Chief Financial Officer to serving in that role on a permanent basis.

Recent Highlights

- **Announced that the Fred Hutchinson Cancer Research Center has dosed the initial participant in an investigator-sponsored Phase 1/2 study of bomedemstat in combination with atezolizumab (Tencentriq®) in people newly diagnosed with extensive stage small cell lung cancer (ES-SCLC).** The study is being led by Rafael Santana-Davila, M.D., associate professor in the University of Washington School of Medicine and Joseph Hiatt, M.D., Ph.D., of Fred Hutchinson Cancer Center ("Fred Hutch"), and in collaboration with the National Cancer Institute (NCI) funded Fred Hutch Lung Specialized Project of Research Excellence. This single-center, open-label study is designed to assess the safety, dose-limiting toxicity, and progression-free survival of bomedemstat in approximately 34 patients with ES-SCLC. More information on this trial can be found on www.clinicaltrials.gov under the identifier NCT05191797.

- **Announced Data Presentations at the Upcoming 27th EHA Congress**. In May 2022, Imago announced that two abstracts have been accepted for poster presentation at EHA, to be presented on June 10, 2022: *"*A Phase 2 Study of The LSD1 Inhibitor IMG-7289 (Bomedemstat) For The Treatment Of Essential Thrombocythemia (ET)*"*; and *"*A Phase 2 Study of IMG-7289 (Bomedemstat) in Patients With Advanced Myelofibrosis.*"*

Anticipated Upcoming Milestones

- Data updates for bomedemstat in MF and ET at EHA on June 10, 2022

- Anticipate initiating Phase 2 combination study of bomedemstat with ruxolitinib in MF in 1H 2022

- Expect an End-of-Phase 2 meeting with FDA for bomedemstat in ET in 2H 2022

- Expect data updates for the bomedemstat Phase 2 trials in ET and MF at the American Society of Hematology (ASH) Annual Meeting in December 2022

First Quarter 2022 Financial Results

- **Cash and Cash Equivalents:** As of March 31, 2022, Imago had cash and cash equivalents and short-term investments of $205.8 million, compared to $82.7 million as of March 31, 2021 and $217.4 million as of December 31, 2021.

- **Research & Development (R&D) Expenses:** R&D expenses for the quarter ended March 31, 2022 were $12.5 million (including stock-based compensation expense of $0.7 million) as compared to $4.8 million for the same period in 2021. The overall increase in R&D expenses was primarily related to increased manufacturing costs of drug supplies for our ongoing and planned clinical trials, continued clinical development activities in separate Phase 2 clinical trials for ET and MF, commencement of a Phase 2 extension study started in the second half of 2021 for the long-term follow-up of patients from the ongoing ET and MF clinical trials, and an increase in personnel-related costs, particularly with respect to an increase in the number of research and development employees, including stock-based compensation expense, as we ramped up our operations.

- **General and Administrative (G&A) Expenses:** G&A expenses for the quarter ended March 31, 2022 were $4.0 million (including stock-based compensation expense of $0.7 million) as compared to $2.4 million for the same period in 2021 primarily due to increasing expense associated with operating a publicly traded company and personnel-related costs.

- **Net Loss:** Net loss for the quarter ended March 31, 2022 was $16.4 million compared to $7.1 million for the same period in 2021.

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About Imago BioSciences

Imago BioSciences is a clinical-stage biopharmaceutical company discovering and developing novel small molecule product candidates that target lysine-specific demethylase 1 (LSD1), an enzyme that plays a central

role in the production of blood cells in the bone marrow. Imago is focused on improving the quality and length of life for patients with cancer and bone marrow diseases. Bomedemstat, an orally available, small molecule inhibitor of LSD1, is the lead product candidate discovered by Imago for the treatment of certain myeloproliferative neoplasms (MPNs), a family of related, chronic cancers of the bone marrow. Imago is evaluating Bomedemstat as a potentially disease-modifying therapy in two Phase 2 clinical trials for the treatment of essential thrombocythemia (NCT04254978) and myelofibrosis (NCT03136185). Bomedemstat has U.S. FDA Orphan Drug and Fast Track Designation for the treatment of ET and MF, European Medicines Agency (EMA) Orphan Designation for the treatment of ET and MF, and PRIority MEdicines (PRIME) Designation by the EMA for the treatment of MF. The company is based in South San Francisco, California.

To learn more, visit www.imagobio.com, www.myelofibrosisclinicalstudy.com, www.etclinicalstudy.com and follow us on Twitter @ImagoBioRx, Facebook and LinkedIn.

Forward Looking Statements

This press release contains forward looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as “anticipates,” “may,” “will,” “should,” “expect,” “believe” and similar expressions (as well as other words or expressions referencing future events, conditions or circumstances) are intended to identify forward-looking statements.

These statements may relate to, but are not limited to, the results, conduct, progress and timing of Imago clinical trials, the regulatory approval path for bomedemstat, plans for future operations, as well as assumptions relating to the foregoing. Forward looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. Important factors that could affect future results and cause those results to differ materially from those expressed in the forward-looking statements include: our limited operating history and lack of products for commercial sale; our significant losses since inception and for the foreseeable future; our need for substantial additional financing; our unpredictable operating results; our business’s dependence on development, regulatory approval and commercialization of our product candidates; difficulties in enrolling patients and risks of substantial delays in our clinical trials; our minimal control over product candidates in investigator-initiated clinical trials; uncertainties in the outcomes of our clinical studies; uncertainties in the regulatory review and approval of our product candidates if our pivotal studies are positive; potentially material changes to the interim, top-line and preliminary data from our clinical trials; potential undesirable effects of our product candidates and safety or supply issues with combination-use products; our potential inability to obtain and maintain orphan drug designation and delays in approvals despite Fast Track designation; risks related to clinical trials outside of the United States; our need to manufacture multiple batches of bomedemstat using a commercial current Good Manufacturing Process; risks related to COVID-19 or other pandemics, natural disasters and wars; risks related to competition; difficulties in expanding our organization and managing growth, attracting and retaining senior management and key scientific personnel and establishing sales and other commercialization functions; risks related to information technology system and cybersecurity; risks related to misconduct of our employees and independent contractors; risks related to hazardous materials and our compliance with environmental laws and regulations; risks related to litigation and other claims; risks related to reliance on third parties to conduct and support preclinical studies and clinical trials, and to manufacture our product candidates; risks related to third-party intellectual property infringement claims and our ability to protect our own intellectual property; risks related to governmental policies and regulations including with respect to drug prices and reimbursement, and changes thereof; risks related to our common stock; risks related to our public company, “emerging growth company” and “smaller reporting company” status; risks related to internal control over financial reporting; and other risks and uncertainties, including those listed in the section titled “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31,

2021 and our subsequent quarterly reports. You should not put undue reliance on any forward-looking statements. Forward looking statements should not be read as a guarantee of future performance or results and will not necessarily be accurate indications of the times at, or by, which such performance or results will be achieved, if at all.

Except as required by law, Imago does not undertake any 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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IMAGO BIOSCIENCES, INC.

Condensed Consolidated Balance Sheets
(in thousands, except share and per share data)
(unaudited)

	MARCH 31, 2022	DECEMBER 31, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 8,259	$ 11,226
Short-term investments	197,564	206,184
Prepaid expenses and other current assets	3,159	3,894
Total current assets	208,982	221,304
Property and equipment, net	4	2
Other long-term assets	3,460	3,480
Total assets	$ 212,446	$ 224,786
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 3,325	$ 3,459
Accrued and other current liabilities	9,609	6,633
Total current liabilities	12,934	10,092
Commitments and contingencies		
Stockholders' equity:		
Common stock, $0.0001 par value; 300,000,000 shares authorized as of March 31, 2022 and December 31, 2021; 33,733,683 and 33,531,743 shares issued and outstanding as of March 31, 2022 and December 31, 2021, respectively	3	3
Additional paid-in capital	329,192	327,387
Accumulated other comprehensive loss	(636)	(43)
Accumulated deficit	(129,047)	(112,653)
Total stockholders' equity	199,512	214,694
Total liabilities and stockholders' equity	$ 212,446	$ 224,786

IMAGO BIOSCIENCES, INC.

Condensed Consolidated Statements of Operations
(in thousands, except share and per share data)
(unaudited)

	THREE MONTHS ENDED MARCH 31,	
	2022	**2021**
Operating expenses:		
Research and development	$ 12,502	$ 4,772
General and administrative	4,011	2,376
Total operating expenses	16,513	7,148
Loss from operations	(16,513)	(7,148)
Other income (expense), net:		
Interest income	64	87
Other income (expense), net	55	(48)
Total other income, net	119	39
Net loss	$ (16,394)	$ (7,109)
Net loss per share, basic and diluted	$ (0.49)	$ (6.90)
Weighted-average shares used in computing net loss per share, basic and diluted	33,646,045	1,030,023