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 16, 2023**

Blueprint Medicines Corporation

(Exact name of registrant as specified in its charter)

Delaware	**001-37359**	**26-3632015**
(State or other jurisdiction of incorporation)	(Commission File Number)	(I.R.S. Employer Identification No.)

45 Sidney Street **Cambridge, Massachusetts** (Address of principal executive offices)	**02139** (Zip Code)

Registrant's telephone number, including area code: **(617) 374-7580**

(Former name or former address, if changed since last report)

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))

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. ☐

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

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common stock, par value $0.001 per share	BPMC	Nasdaq Global Select Market

Item 2.02 Results of Operations and Financial Condition.

On February 16, 2023, Blueprint Medicines Corporation (the "Company") announced its financial results for the quarter and year ended December 31, 2022 and other business highlights. 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 and is incorporated by reference herein.

The information in this Current Report on Form 8-K, including Exhibit 99.1 attached hereto, is intended to be 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 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 filing.

Item 7.01 Regulation FD.

On February 16, 2023, the Company is hosting an investor conference call and webcast to review its financial results and other business highlights. A copy of the presentation for the investor conference call and for the webcast is furnished as Exhibit 99.2 to this Current Report on Form 8-K.

The information in Item 7.01 of this Current Report on Form 8-K, including Exhibit 99.2 attached hereto, is intended to be furnished and shall not be deemed "filed" for purposes of Section 18 of 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 filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	**Description**
99.1	Press release issued by Blueprint Medicines Corporation on February 16, 2023
99.2	Corporate slide presentation of Blueprint Medicines Corporation dated February 16, 2023
104	Cover Page Interactive Data File (embedded within the Inline XBRL document and incorporated as 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 hereunto duly authorized.

BLUEPRINT MEDICINES CORPORATION

Date: February 16, 2023

By: /s/ Kathryn Haviland
Kathryn Haviland
Chief Executive Officer

Exhibit 99.1

Blueprint Medicines Reports Fourth Quarter and Full Year 2022 Results

-- Achieved $204.0 million in total revenues in 2022, including $111.0 million in AYVAKIT®/AYVAKYT® (avapritinib) net product revenues --

-- Continued progress toward regulatory approvals of AYVAKIT/AYVAKYT for indolent systemic mastocytosis, with FDA granting priority review of a supplemental new drug application and EMA validating a type II variation marketing authorization application --

-- Positive data from PIONEER trial of AYVAKIT in indolent systemic mastocytosis to be presented at the AAAAI Annual Meeting --

CAMBRIDGE, Mass., February 16, 2023 – Blueprint Medicines Corporation (NASDAQ: BPMC) today reported financial results and provided a business update for the fourth quarter and full year ended December 31, 2022.

"In 2022, AYVAKIT became the standard of care for patients with advanced systemic mastocytosis in the U.S., and we continued to solidify our global leadership in mast cell disorders. Today, we are at the precipice of a pivotal moment in Blueprint's history as we near a potential FDA approval of AYVAKIT for a much broader population of patients with indolent SM, which will enable us to address the significant medical needs of SM patients and create a critical inflection point in our growing revenue stream. In addition to our commercial execution, we advanced additional clinical development programs and continued to bolster our financial strength through our strategic financing and business development," said Kate Haviland, Chief Executive Officer of Blueprint Medicines. "In 2023, Blueprint Medicines has a diversity of fundamental value drivers that position us well on the path to achieve our 2027 Blueprint for Precision at Scale and translate the promise of precision medicine into reality for thousands of patients globally."

Fourth Quarter 2022 Highlights and Recent Progress

Systemic mastocytosis

- Recorded global AYVAKIT®/AYVAKYT® (avapritinib) net product revenues of $111.0 million and $30.1 million for the full year and the fourth quarter of 2022, respectively, representing more than 100 percent year-over-year growth.
- Anticipate $130 million to $140 million in AYVAKIT net product revenues in 2023 for advanced systemic mastocytosis (SM) and GIST. This guidance excludes revenue from the anticipated AYVAKIT indication expansion in indolent systemic mastocytosis (ISM) in mid-2023.
- Announced acceptance by the U.S. Food and Drug Administration (FDA) of the company's supplemental new drug application for AYVAKIT for the treatment of adults with moderate-to-severe ISM. The FDA granted priority review with an action date of May 22, 2023. Read the press release here.
- Achieved validation of a type II variation marketing authorization application from the European Medicines Agency for AYVAKYT for the treatment of adult patients with moderate-to-severe ISM.
- Announced plans to present positive data from the PIONEER trial of AYVAKIT in ISM at the 2023 American Academy of Allergy, Asthma and Immunology (AAAAI) Annual Meeting. Read the press release here.
- Presented new clinical data demonstrating AYVAKIT significantly improved survival in patients with all sub-types of advanced SM at the American Society of Hematology annual conference. Read presentation and posters available here.
- Advanced the development of elenestinib and announced topline results from Part 1 of the HARBOR trial demonstrating clinical activity and safety. Read the press release here.

EGFR-driven non-small cell lung cancer (NSCLC)

- Presented new clinical data at the company's Investor Day informing the development strategy for BLU-945, including plan to prioritize development of BLU-945 in combination with osimertinib in first-line EGFR L858R-positive NSCLC. This included data demonstrating that BLU-945 monotherapy treatment led to ctDNA responses and tumor shrinkage in late-line patients with EGFR-driven NSCLC, as well as early dose escalation data showing BLU-945 in combination with osimertinib has been generally well-tolerated to-date. Read the Investor Day presentation here.
- Presented new preclinical data supporting the development of BLU-525 as a potent and selective EGFR inhibitor at the AACR-NCI-EORTC meeting. Read the poster here.

CDK2-vulnerable breast and other cancers

- Announced a partial clinical trial hold for the Phase 1/2 VELA study of BLU-222 due to transient and reversible visual adverse events observed in a limited number of patients. Read the press release here.
- Presented new data supporting BLU-222 as monotherapy or in combination with ribociclib in preclinical models at San Antonio Breast Cancer Symposium. Read the poster presentation here.

Corporate

- Presented the company's 2027 Blueprint to achieve Precision at Scale, a five-year business strategy to double the company's impact at Investor Day 2022. Read the Investor Day presentation here.
- Announced the appointment of John Tsai, M.D, former President, Global Drug Development and Chief Medical Officer at Novartis AG, to the company's Board of Directors.

Key Upcoming Milestones

The company plans to achieve the following milestones by mid-2023:

- Present registrational PIONEER trial data in ISM at the AAAAI annual meeting in the first quarter of 2023.
- Receive approval from the FDA for AYVAKIT for use in adults with ISM in the second quarter of 2023.
- Present dose escalation data from the CONCERTO trial of BLU-451 in EGFR exon 20 insertion-positive NSCLC in the first half of 2023.
- Present dose escalation data from the VELA trial of BLU-222 in patients with CDK2-vulnerable cancers in the first half of 2023.
- Submit an investigational new drug (IND) application to the FDA for BLU-525 in the first half of 2023.
- Nominate a development candidate for inhibition of wild-type KIT for the treatment of chronic urticaria in mid-2023.

Fourth Quarter and Year End 2022 Results

- **Revenues:** Revenues were $38.8 million for the fourth quarter of 2022, including $30.1 million of net product revenues from sales of AYVAKIT/AYVAKYT and $8.7 million in collaboration revenues. Revenues for the year ended December 31, 2022 were $204.0 million, including $111.0 million of net product revenues from sales of AYVAKIT/AYVAKYT, and $93.0 million in collaboration and license revenues. Blueprint Medicines recorded $107.0 million and $180.1 million in revenues in the fourth quarter and year ended December 31, 2021, respectively.
- **Cost of Sales:** Cost of sales was $4.8 million for the fourth quarter of 2022 and $17.8 million for the year ended December 31, 2022, as compared to $7.5 million for the fourth quarter of 2021 and $17.9 million for the full year ended December 31, 2021. This decrease was primarily driven by lower costs related to collaboration product sales.
- **R&D Expenses:** Research and development expenses were $117.8 million for the fourth quarter of 2022 and $477.4 million for the year ended December 31, 2022, as compared to $356.9 million for the fourth quarter of 2021 and $601.0 million for the year ended December 31, 2021. Research and development expense for the year ended December 2021 included $260.0 million incurred to acquire in-process research and development compounds through the acquisition of Lengo Therapeutics which was the primary driver of the decrease in expenses for the year ended December 31, 2022. Research and development expenses also included $9.8 million in stock-based compensation expenses for the fourth quarter of 2022 and $40.3 million in stock-based compensation for the year ended December 31, 2022.

- **SG&A Expenses:** Selling, general and administrative expenses were $64.0 million for the fourth quarter of 2022 and $237.4 million for the year ended December 31, 2022, as compared to $54.2 million for the fourth quarter of 2021 and $195.3 million for the year ended December 31, 2021. This increase was primarily due to increased internal and external costs associated with expanding our commercial infrastructure for commercialization of AYVAKIT/AYVAKYT. Selling, general and administrative expenses included $16.4 million in stock-based compensation expenses for the fourth quarter of 2022 and $58.7 million in stock-based compensation for the year ended December 31, 2022.
- **Net Income (Loss):** Net loss was $(158.6) million for the fourth quarter of 2022 and $(557.5) million for the year ended December 31, 2022, or a diluted net loss per share of $(2.65) and diluted net loss per share of $(9.35), respectively, as compared to a net loss of $(318.7) million for the fourth quarter of 2021 and a net loss of $(644.1) million for the year ended December 31, 2021, or a diluted net loss per share of $(5.40) and a diluted net loss per share of $(11.01), respectively.
- **Cash Position:** As of December 31, 2022, cash, cash equivalents and marketable securities were $1,078.5 million, as compared to $1,034.6 million as of December 31, 2021.

2023 Financial Guidance

Blueprint Medicines today announced it anticipates approximately $130 million to $140 million in AYVAKIT net product revenues for advanced SM and GIST in 2023, and $40 million to $50 million in collaboration revenues from existing collaborations. This guidance excludes revenue from the anticipated AYVAKIT indication expansion in ISM in mid-2023. The company continues to expect that its existing cash, cash equivalents and investments, together with anticipated future product revenues, will provide sufficient capital to enable the company to achieve a self-sustainable financial profile.

Conference Call Information

Blueprint Medicines will host a live conference call and webcast at 8:00 a.m. ET today to discuss fourth quarter and full year 2022 financial results and recent business activities. The conference call may be accessed by dialing 844-200-6205 (domestic) or 929-526-1599 (international), and referring to conference ID 286085. A webcast of the call will also be available under "Events and Presentations" in the Investors & Media section of the Blueprint Medicines website at http://ir.blueprintmedicines.com/. The archived webcast will be available on Blueprint Medicines' website approximately two hours after the conference call and will be available for 30 days following the call.

Upcoming Investor Conferences

Blueprint Medicines will participate in two upcoming investor conferences:

- **Cowen 43rd Annual Health Care Conference** on Monday, March 6, 2023 at 2:10 pm ET.
- **Barclays Global Healthcare Conference,** on Wednesday, March 15, 2023 at 2:35 pm ET.

A live webcast of each presentation will be available by visiting the Investors & Media section of Blueprint Medicines' website at http://ir.blueprintmedicines.com. A replay of the webcasts will be archived on Blueprint Medicines' website for 30 days following each presentation.

About Blueprint Medicines

Blueprint Medicines is a global precision therapy company that invents life-changing therapies for people with cancer and blood disorders. Applying an approach that is both precise and agile, we create medicines that selectively target genetic drivers, with the goal of staying one step ahead across stages of disease. Since 2011, we have leveraged our research platform, including expertise in molecular targeting and world-class drug design capabilities, to rapidly and reproducibly translate science into a broad pipeline of precision therapies. Today, we are delivering approved medicines directly to patients in the United States and Europe, and we are globally advancing multiple programs for systemic mastocytosis, lung cancer, breast cancer and other genomically defined cancers, and cancer immunotherapy. For more information, visit www.BlueprintMedicines.com and follow us on Twitter (@BlueprintMeds) and LinkedIn.

Cautionary Note Regarding Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including, without limitation, statements regarding plans, strategies, timelines and expectations for Blueprint Medicines' current or future approved drugs and drug candidates, including approvals and launches, the initiation of clinical trials or the results of ongoing and planned clinical trial; Blueprint Medicines' plans, strategies and timelines to nominate development candidates; timelines and expectations for interactions with the FDA and other regulatory authorities; statements regarding the plans and potential benefits of AYVAKIT in treating patients with indolent SM; statements regarding plans and expectations for Blueprint Medicines' current or future approved drugs and drug candidates; the potential benefits of any of Blueprint Medicines' current or future approved drugs or drug candidates in treating patients; and Blueprint Medicines' financial performance, strategy, goals and anticipated milestones, business plans and focus. The words "aim," "may," "will," "could," "would," "should," "expect," "plan," "anticipate," "intend," "believe," "estimate," "predict," "project," "potential," "continue," "target" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Any forward-looking statements in this press release are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this press release, including, without limitation: the risk the partial clinical hold may or may not be resolved in a timely manner; there may be additional adverse events observed that could impact the extent of the partial clinical hold or Blueprint Medicines' resolution of the partial clinical hold; there may be amendments to the trial protocol that impact the timing of the trial or evaluation of the data; preliminary activity and safety data may not be representative of more mature data; the COVID-19 pandemic may impact Blueprint Medicines' business, operations, strategy, goals and anticipated milestones, including ongoing and planned research and discovery activities, Blueprint Medicines' ability to conduct ongoing and planned clinical trials; the risk of delay of any current or planned clinical trials or the development of Blueprint Medicines' current or future drug candidates; risks related to Blueprint Medicines' ability to successfully demonstrate the safety and efficacy of its drug candidates and gain approval of its drug candidates on a timely basis, if at all; preclinical and clinical results for Blueprint Medicines' drug candidates may not support further development of such drug candidates either as monotherapies or in combination with other agents or may impact the anticipated timing of data or regulatory submissions; the timing of the initiation of clinical trials and trial cohorts at clinical trial sites and patient enrollment rates may be delayed or slower than anticipated; actions of regulatory agencies may affect the initiation, timing and progress of clinical trials; risks related to Blueprint Medicines' ability to obtain, maintain and enforce patent and other intellectual property protection for its products and current or future drug candidates it is developing; and the success of Blueprint Medicines' current and future collaborations, financing arrangements, partnerships or licensing arrangements. Any forward-looking statements contained in this press release represent Blueprint Medicines' views only as of the date hereof and should not be relied upon as representing its views as of any subsequent date. Except as required by law, Blueprint Medicines explicitly disclaims any obligation to update any forward-looking statements.

Trademarks

Blueprint Medicines Corporation
Selected Condensed Consolidated Balance Sheet Data
(in thousands)
(unaudited)

(1) Blueprint Medicines defines working capital as current assets less current liabilities.

	December 31, 2022	December 31, 2021
Cash, cash equivalents and investments	$ 1,078,472	$ 1,034,643
Working capital (1)	863,417	404,260
Total assets	1,349,902	1,252,225
Deferred revenue (2)	18,291	36,576
Liability related to the sale of future royalties and revenues (2)	430,330	-
Term loan (2)	139,083	-
Total liabilities	835,225	281,490
Total stockholders' equity	514,677	970,735

(1) Blueprint Medicines defines working capital as current assets less current liabilities.
(2) Includes both current and long-term portions of the balance

Blueprint Medicines Corporation
Condensed Consolidated Statements of Operations Data
(in thousands, except per share data)
(unaudited)

	Three Months Ended December 31,		Years Ended December 31,	
	2022	**2021**	**2022**	**2021**
Revenues:				
Product revenue, net	$ 30,064	$ 20,029	$ 110,993	$ 57,687
Collaboration and License Revenue	8,717	86,993	65,543	122,393
License Revenue – Related Party	--	--	27,500	--
Total revenues	$ 38,781	$ 107,022	$ 204,036	$ 180,080
Cost and operating expenses:				
Cost of sales	4,848	7,549	17,813	17,934
Collaboration loss sharing	1,872	4,531	8,948	7,801
Research and development	117,840	356,877	477,419	601,033
Selling, general and administrative	64,019	54,199	237,374	195,293
Total cost and operating expenses	$ 188,579	$ 423,156	$ 741,554	$ 822,061
Other income (expense):				
Interest income (expense), net	(9,240)	463	(16,767)	2,386
Other income (expense), net	1,435	(381)	2,004	(1,489)
Total other income (expense)	$ (7,805)	$ 82	$ (14,763)	$ 897
Loss before income taxes	$ (157,603)	$ (316,052)	$ (552,281)	$ (641,084)
Income tax expense	1,036	2,635	5,236	3,001
Net loss	$ (158,639)	$ (318,687)	$ (557,517)	$ (644,085)
Net loss per share applicable to common stockholders — basic	$ (2.65)	$ (5.40)	$ (9.35)	$ (11.01)
Net loss per share applicable to common stockholders —diluted	$ (2.65)	$ (5.40)	$ (9.35)	$ (11.01)
Weighted-average number of common shares used in net loss per share applicable to common stockholders — basic	59,873	58,985	59,642	58,518
Weighted-average number of common shares used in net loss per share applicable to common stockholders — diluted	59,873	58,985	59,642	58,518

Media Contact

Sarah Mena Guerrero
617-714-6684
media@blueprintmedicines.com

Investor Contact

Jenna Cohen
857-209-3147
ir@blueprintmedicines.com

Exhibit 99.2


blueprint™
MEDICINES
Fourth Quarter and
Full Year 2022
Financial Results
FEBRUARY 16, 2023

Agenda

Introduction and Notable 2022 Accomplishments	**Kate Haviland,** Chief Executive O
AYVAKIT Performance and ISM Launch	**Philina Lee, PhD,** Chief Commerc
SM Leadership at AAAAI and Portfolio Milestones	**Christy Rossi,** Chief Operating O
2022 Financial Performance and 2023 Guidance	**Mike Landsittel,** Chief Financial C
Joining Q&A	
Fouad Namouni, MD, President, Research & Development	**Becker Hewes, MD,** Chief Medica

ISM, indolent systemic mastocytosis; SM, systemic mastocytosis; AAAAI, American Academy of Allergy, Asthma, and Immunology Annual Conference.

Forward-looking statements

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including, without limitation, plans, strategies, timelines and expectations for Blueprint Medicines' current or future approved drugs and drug candidates, including approvals and launches, the initiation results of ongoing and planned clinical trial; Blueprint Medicines' plans, strategies and timelines to nominate development candidates; timelines and expectations for intera other regulatory authorities; statements regarding the plans and potential benefits of AYVAKIT in treating patients with indolent SM; statements regarding plans and expect Medicines' current or future approved drugs and drug candidates; the potential benefits of any of Blueprint Medicines' current or future approved drugs or drug candidates i Blueprint Medicines' financial performance, strategy, goals and anticipated milestones, business plans and focus. The words "aim," "may," "will," "could," "would," "should," "anticipate," "intend," "believe," "estimate," "predict," "project," "potential," "continue," "target" and similar expressions are intended to identify forward-looking statements, a looking statements contain these identifying words. Any forward-looking statements in this presentation are based on management's current expectations and beliefs and a risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements con including, without limitation: the risk the partial clinical hold may or may not be resolved in a timely manner; there may be additional adverse events observed that could im partial clinical hold or Blueprint Medicines' resolution of the partial clinical hold; there may be amendments to the trial protocol that impact the timing of the trial or evaluatio activity and safety data may not be representative of more mature data; the COVID-19 pandemic may impact Blueprint Medicines' business, operations, strategy, goals and including ongoing and planned research and discovery activities, Blueprint Medicines' ability to conduct ongoing and planned clinical trials; the risk of delay of any current the development of Blueprint Medicines' current or future drug candidates; risks related to Blueprint Medicines' ability to successfully demonstrate the safety and efficacy of gain approval of its drug candidates on a timely basis, if at all; preclinical and clinical results for Blueprint Medicines' drug candidates may not support further development either as monotherapies or in combination with other agents or may impact the anticipated timing of data or regulatory submissions; the timing of the initiation of clinical tria clinical trial sites and patient enrollment rates may be delayed or slower than anticipated; actions of regulatory agencies may affect the initiation, timing and progress of clin Blueprint Medicines' ability to obtain, maintain and enforce patent and other intellectual property protection for its products and current or future drug candidates it is devel Blueprint Medicines' current and future collaborations, financing arrangements, partnerships or licensing arrangements. Any forward-looking statements contained in this pr Blueprint Medicines' views only as of the date hereof and should not be relied upon as representing its views as of any subsequent date. Except as required by law, Bluepri disclaims any obligation to update any forward-looking statements contained in this presentation as a result of new information, future events or otherwise. Accordingly, rea place undue reliance on these forward-looking statements.

This presentation also contains estimates, projections and other statistical data made by independent parties and by Blueprint Medicines relating to market size and growth Blueprint Medicines' industry. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, p and estimates of Blueprint Medicines' future performance and the future performance of the markets in which the company operates are necessarily subject to a high degre

blueprint™ MEDICINES

Not for promotional use

Notable accomplishments in 2022 and recent period

SM LEADERSHIP

AYVAKIT® avapritinib | tablets

- Doubled net product revenue YoY
- ISM launch readiness preparedness

PIONEER

- Positive pivotal data for ISM
- FDA and EMA acceptance of ISM regulatory submissions

HARBOR

- Announced positive topline 12-week data for elenestinib

PRECISION AT SCALE R&D

Symphony

- Refined 1L LR strategy for BLU-945
- Initiated combination cohort

Concerto

- Initiated Phase 1/2 trial for BLU-451

Vela

- Initiated Phase 1/2 trial for BLU-222

- Expanded targeted protein degradation capabilities
- Introduced wild-type KIT program for chronic urticaria

STRONG FINA

- Completed non-dilutive
- Ended yea than $1B in balance sh

blueprint MEDICINES

Not for promotional use

YoY, year-over-year; ISM, indolent systemic mastocytosis; FDA, U.S. Food and Drug Administration; EMA, European Medicines Agency; 1L, first-line; LR, L858R

Blueprint 2027: Precision at scale

blueprint™ 2027

	2011-2022	Planne 2022-20
Approved medicines	2	4+
Disease leadership areas	1	3+
Late-stage clinical programs	2	4+
Research platforms	1	2
Cumulative development candidates	14	25+

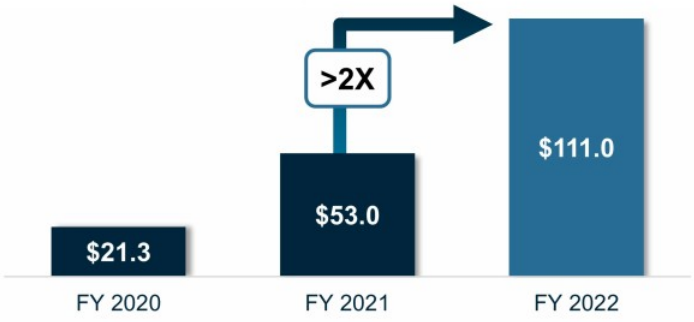
blueprint™ MEDICINES

Not for promotional use

AYVAKIT update: full year and fourth quarter 2022 performanc

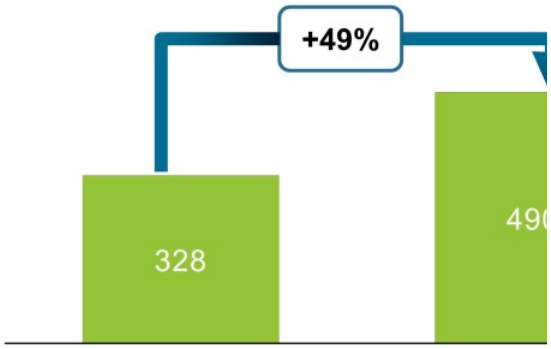
AYVAKIT®
avapritinib | tablets

GLOBAL NET REVENUES ($, MILLIONS)



ACHIEVED $30.1M NET REVENUES IN Q4 2022

ESTIMATED US PATIENTS ON A



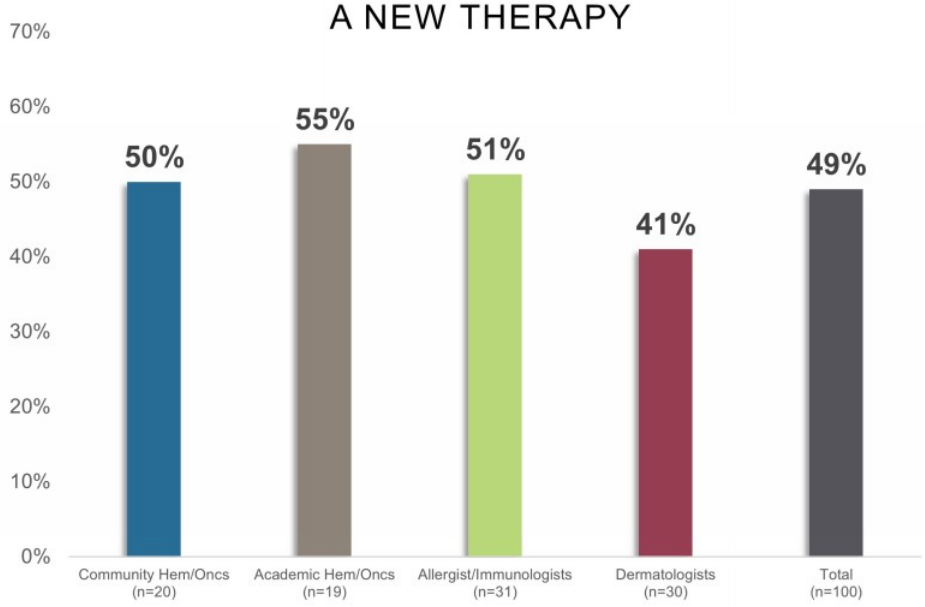
ANTICIPATE $130 TO $140 MILLION IN AYVAKIT NET PRODUCT REVENUES IN 2
FOR ADVANCED SM AND GIST

blueprint MEDICINES
Not for promotional use

Source: Blueprint Medicines data on file

Providers estimate approximately 50 percent of ISM patients need a n therapy

PERCENT OF ISM PATIENTS IN NEED OF A NEW THERAPY



Source: Blueprint Medicines primary market research conducted September 2022

ISM INITIAL COMMERCIAL FOCUS

- Targeting broader presc base and high-volume tre
- Engaging patients to cons new treatment optio
- Maintaining strong and r access to therapy

HAE: a rare disease trajectory achieving significant value over time

HEREDITARY ANGIOEDEMA

- Rare disorder characterized by anaphylaxis, attacks of swelling
- Treated by allergist immunologists
- New specialty market established with the approval of disease modifying therapies
- Market is continuing to grow, with >35% 3-year growth rate (2019-2021)

~7,500

patients diagnosed and treated

~$1.5B

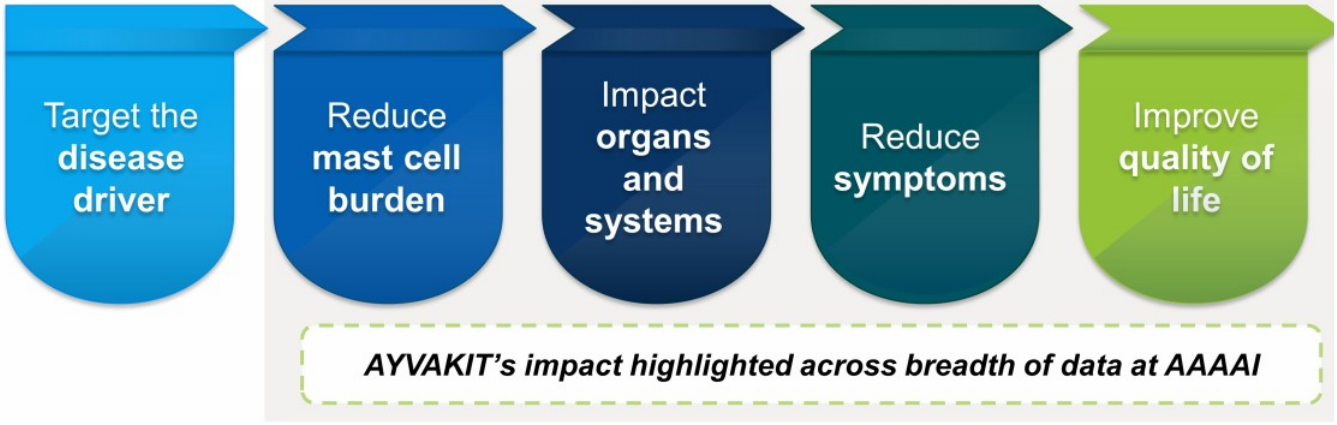
sales of prophylactic therapies

blueprint MEDICINES

Not for promotional use

1 Based on Biocryst Pharmaceutical report on U.S. claims data analyses. 2 Blueprint Medicines analysis of Evaluate Pharma, company 10K data for sales of Cinryze, Takhzyr Orladeyo, and Haegarda.. HAE, hereditary angioedema.

AYVAKIT potently and selectively targets KIT D816V to deliver downstream disease impacts that patients and providers care about r



AYVAKIT DEMONSTRATES TOTALITY OF IMPACT ON ISM WHILE MAINTAINING A CLEAN SA

Key anticipated portfolio milestones in 2023

Area	Program	Milestone
Mast cell disorders	AYVAKIT	Present registrational PIONEER trial data in indolent SM at AAAAI Annual Meeting
	AYVAKYT	Achieve EMA validation of a type II variation MAA for indolent SM
	AYVAKIT	Achieve FDA approval and initiate U.S. launch in indolent SM
	Research	Nominate a development candidate targeting wild-type KIT for chronic urticaria
	Elenestinib	Present Part 1 HARBOR trial data in indolent SM
EGFRm NSCLC	BLU-525	Submit IND to FDA
	BLU-451	Present initial CONCERTO trial dose escalation data in EGFR exon 20 NSCLC
	BLU-945	Provide initial update on SYMPHONY trial expansion in 1L L858R
CDK2 vulnerable cancers	BLU-222	Present initial VELA trial dose escalation data

SM, systemic mastocytosis; AAAAI, American Academy of Allergy, Asthma & Immunology; EMA, European Medicines Agency; MAA, marketing authorization application; FDA Food and Drug Administration; IND, investigational new drug

Strong financial position bolstered by diversity of revenue and growin product revenue

Statement of Operations (unaudited)	Three Months Ended 12/31/2022	Three Months Ended 12/31/2021	FY Ended 12/31/2022	
Total revenue	$38.8M	$107.0M	$204.0M	
Net product sales	$30.1M	$20.0M	$111.0M	
Collaboration and license revenue	$8.7M	$87.0M	$93.0M	
Cost of sales	$4.8M	$7.5M	$17.8M	
Collaboration loss sharing	$1.9M	$4.5M	$8.9M	
Research & development expense[1]	$117.8M	$356.9M	$477.4M	
Selling, general & admin expense[2]	$64.0M	$54.2M	$237.4M	
Net income (loss)	$(158.6)M	$(318.7)M	$(557.5)M	

Balance Sheet (unaudited)	12/31/2022	
Cash, cash equivalents and investments	$1,078.5M	

blueprint MEDICINES

Not for promotional use

1. Includes stock-based compensation expense of $9.8M and $10.0M in the three months ended 12/31/22 and 12/31/21, respectively, and $40.3M and $39.7M in the full year 12/31/22 and 12/31/21, respectively. 2. Includes stock-based compensation expense of $16.4M and $12.7M in the three months ended 12/31/22 and 12/31/21, respectively, a and $52.0M in the full year ended 12/31/22 and 12/31/21.

Full year 2023 financial guidance

	FY 2022 Actuals	FY 2023 Guidance	FY 2023 Comment
AYVAKIT Net Product Revenue	$111.0M	$130M - $140M	Moderate growth in A revenue; additional re expected from anticipat launch not included in g
Existing Collaboration and License Revenue	$93.0M	$40M - $50M	Continued diversity of c collaboration and lic revenue

ANTICIPATE ADDITIONAL REVENUE GROWTH DRIVEN BY EXPANSION INTO IS


blueprint™
MEDICINES
Thank You