

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, 2022

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____

001-33357
(Commission file number)

PROTALIX BIOTHERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation or organization)

2 University Plaza
Suite 100
Hackensack, NJ
(Address of principal executive offices)

65-0643773
(I.R.S. Employer
Identification No.)

07601
(Zip Code)

(201)-696-9345
(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	PLX	NYSE American

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	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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 Exchange Act). Yes No

On August 12, 2022, approximately 49,753,409 shares of the Registrant's common stock, \$0.001 par value, were outstanding.

FORM 10-Q
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PART I – FINANCIAL INFORMATION**Item 1. Financial Statements****PROTALIX BIOTHERAPEUTICS, INC.**
CONDENSED CONSOLIDATED BALANCE SHEETS
(U.S. dollars in thousands)
(Unaudited)

	<u>June 30, 2022</u>	<u>December 31, 2021</u>
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 12,492	\$ 38,985
Short-term bank deposits	16,082	-
Accounts receivable – Trade	2,022	3,442
Other assets	2,597	1,285
Inventories	16,507	17,954
Total current assets	<u>\$ 49,700</u>	<u>\$ 61,666</u>
NON-CURRENT ASSETS:		
Funds in respect of employee rights upon retirement	\$ 1,403	\$ 2,077
Property and equipment, net	4,768	4,962
Operating lease right of use assets	4,769	4,960
Total assets	<u>\$ 60,640</u>	<u>\$ 73,665</u>
LIABILITIES NET OF CAPITAL DEFICIENCY		
CURRENT LIABILITIES:		
Accounts payable and accruals:		
Trade	\$ 6,991	\$ 6,986
Other	12,663	16,433
Operating lease liabilities	1,083	1,207
Contracts liability	10,223	8,550
Total current liabilities	<u>\$ 30,960</u>	<u>\$ 33,176</u>
LONG TERM LIABILITIES:		
Convertible notes	\$ 28,033	\$ 27,887
Contracts liability	5,895	11,790
Liability for employee rights upon retirement	1,748	2,472
Operating lease liabilities	3,893	4,376
Total long term liabilities	<u>\$ 39,569</u>	<u>\$ 46,525</u>
Total liabilities	<u>\$ 70,529</u>	<u>\$ 79,701</u>
COMMITMENTS		
CAPITAL DEFICIENCY		
Total liabilities net of capital deficiency	<u>(9,889)</u>	<u>(6,036)</u>
	<u>\$ 60,640</u>	<u>\$ 73,665</u>

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

PROTALIX BIOTHERAPEUTICS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(U.S. dollars in thousands, except share and per share data)
(Unaudited)

	Six Months Ended		Three Months Ended	
	June 30, 2022	June 30, 2021	June 30, 2022	June 30, 2021
REVENUES FROM SELLING GOODS	\$ 12,410	\$ 7,754	\$ 3,382	\$ 3,243
REVENUES FROM LICENSE AND R&D SERVICES	12,428	9,993	5,371	3,184
TOTAL REVENUE	24,838	17,747	8,753	6,427
COST OF GOODS SOLD (1)	(10,121)	(9,498)	(4,087)	(4,733)
RESEARCH AND DEVELOPMENT EXPENSES (2)	(16,346)	(14,811)	(7,579)	(7,689)
SELLING, GENERAL AND ADMINISTRATIVE EXPENSES (3)	(5,765)	(6,309)	(2,611)	(3,171)
OPERATING LOSS	(7,394)	(12,871)	(5,524)	(9,166)
FINANCIAL EXPENSES	(1,242)	(4,240)	(623)	(2,203)
FINANCIAL INCOME	1,016	344	813	128
FINANCIAL INCOME (EXPENSES), NET	(226)	(3,896)	190	(2,075)
OTHER INCOME	-	51	-	-
NET LOSS FOR THE PERIOD	\$ (7,620)	\$ (16,716)	\$ (5,334)	\$ (11,241)
LOSS PER SHARE OF COMMON STOCK – BASIC AND DILUTED	\$ (0.16)	\$ (0.39)	\$ (0.11)	\$ (0.25)
WEIGHTED AVERAGE NUMBER OF SHARES OF COMMON STOCK USED IN COMPUTING LOSS PER SHARE – BASIC AND DILUTED	46,589,976	42,744,426	47,327,952	45,436,907
(1) Includes share-based compensation	\$ 22	\$ 152	\$ 28	\$ 43
(2) Includes share-based compensation	\$ 161	\$ 370	\$ 85	\$ 160
(3) Includes share-based compensation	\$ 941	\$ 872	\$ 175	\$ 375

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

PROTALIX BIOTHERAPEUTICS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN
STOCKHOLDERS' EQUITY (CAPITAL DEFICIENCY)
(U.S. dollars in thousands, except share data)
(Unaudited)

	Common Stock (1) Number of Shares	Common Stock	Additional Paid-In Capital	Accumulated Deficit	Total
	Amount				
Balance at January 1, 2021	34,765,280	\$ 35	\$ 320,280	\$ (347,352)	\$ (27,037)
Changes during the six-month period ended June 30, 2021:					
Issuance of common stock, net of issuance cost	8,749,999	9	37,616		37,625
Issuance of common stock under the Sales Agreement, net	1,867,552	2	8,573		8,575
Share-based compensation related to stock options			832		832
Share-based compensation related to restricted stock awards			562		562
Exercise of warrants	173,816	*			*
Net loss for the period				(16,716)	(16,716)
Balance at June 30, 2021	45,556,647	\$ 46	\$ 367,863	\$ (364,068)	\$ 3,841
Balance at January 1, 2022	45,556,647	\$ 46	\$ 368,852	\$ (374,934)	\$ (6,036)
Changes during the six-month period ended June 30, 2022:					
Issuance of common stock under the Sales Agreement, net	2,395,823	3	2,638		2,641
Share-based compensation related to stock options			293		293
Share-based compensation related to restricted stock awards	759,482	*	831		831
Exercise of warrants	1,000	*	2		2
Net loss for the period				(7,620)	(7,620)
Balance at June 30, 2022	48,712,952	\$ 49	\$ 372,616	\$ (382,554)	\$ (9,889)
Balance at March 31, 2021	45,382,831	\$ 46	\$ 367,285	\$ (352,827)	\$ 14,504
Changes during the three-month period ended June 30, 2021:					
Share-based compensation related to stock options			322		322
Share-based compensation related to restricted stock awards			256		256
Exercise of warrants	173,816	*			*
Net loss for the period				(11,241)	(11,241)
Balance at June 30, 2021	45,556,647	\$ 46	\$ 367,863	\$ (364,068)	\$ 3,841
Balance at March 31, 2022	46,316,129	\$ 46	\$ 369,688	\$ (377,220)	\$ (7,486)
Changes during the three-month period ended June 30, 2022:					
Issuance of common stock under the Sales Agreement, net	2,395,823	3	2,638		2,641
Share-based compensation related to stock options			144		144
Share-based compensation related to restricted stock awards			144		144
Exercise of warrants	1,000	*	2		2
Net loss for the period				(5,334)	(5,334)
Balance at June 30, 2022	48,712,952	\$ 49	\$ 372,616	\$ (382,554)	\$ (9,889)

* Represents an amount equal to less than \$1.

(1) Common stock, \$0.001 par value; Authorized – as of June 30, 2022 and 2021 - 120,000,000 shares.

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

PROTALIX BIOTHERAPEUTICS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(U.S. dollars in thousands)
(Unaudited)

	Six Months Ended	
	June 30, 2022	June 30, 2021
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	\$ (7,620)	\$ (16,716)
Adjustments required to reconcile net loss to net cash used in operating activities:		
Share-based compensation	1,124	1,394
Depreciation	538	574
Financial income, net (mainly exchange differences)	(952)	(121)
Changes in accrued liability for employee rights upon retirement	(449)	70
Loss (gain) on amounts funded in respect of employee rights upon retirement	16	(56)
Gain on sale of fixed assets	-	(51)
Amortization of debt issuance costs and debt discount	146	1,928
Changes in operating assets and liabilities:		
Increase (decrease) in contracts liability (including non-current portion)	(2,644)	12,268
Decrease (increase) in accounts receivable and other assets	76	(1,587)
Changes in right of use assets	(3)	94
Decrease (increase) in inventories	1,447	(558)
Decrease in accounts payable and accruals	(4,864)	(544)
Decrease in other long term liabilities	-	(13)
Net cash used in operating activities	\$ (13,185)	\$ (3,318)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Investment in bank deposits	\$ (16,000)	\$ (37,835)
Proceeds from sale of short-term deposits	-	15,000
Purchase of property and equipment	(357)	(667)
Proceeds from sale of property and equipment	-	53
Decrease in restricted deposit	-	359
Amounts paid (funded) in respect of employee rights upon retirement, net	457	(54)
Net cash used in investing activities	\$ (15,900)	\$ (23,144)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Payment for promissory note	-	\$ (4,086)
Proceeds from issuance of common stock and warrants, net	-	37,625
Proceeds from issuance of common stock under the Sales Agreement, net	\$ 2,641	8,575
Exercise of warrants	2	-
Net cash provided by financing activities	\$ 2,643	\$ 42,114
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	\$ (51)	\$ (35)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(26,493)	15,617
BALANCE OF CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	38,985	18,265
BALANCE OF CASH AND CASH EQUIVALENTS AT END OF PERIOD	\$ 12,492	\$ 33,882

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

PROTALIX BIOTHERAPEUTICS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(U.S. dollars in thousands)
(Unaudited)

(Continued) – 2

	Six Months Ended	
	June 30, 2022	June 30, 2021
SUPPLEMENTARY INFORMATION ON INVESTING AND FINANCING ACTIVITIES NOT INVOLVING CASH FLOWS:		
Purchase of property and equipment	\$ 81	\$ 372
Right of use assets obtained in exchange for new operating lease liabilities	\$ 99	\$ 232
SUPPLEMENTARY DISCLOSURE ON CASH FLOWS		
Interest paid	\$ 1,120	\$ 2,172
Interest received	\$ 93	\$ 307

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

PROTALIX BIOTHERAPEUTICS, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

NOTE 1 - SIGNIFICANT ACCOUNTING POLICIES

a. General

Protalix BioTherapeutics, Inc. (collectively with its subsidiaries, the “Company”) and its wholly-owned subsidiaries, Protalix Ltd. and Protalix B.V. (collectively, the “Subsidiaries”), are biopharmaceutical companies focused on the development and commercialization of recombinant therapeutic proteins based on the Company’s proprietary ProCellEx[®] protein expression system (“ProCellEx”). To date, the Company has successfully developed taliglucerase alfa (marketed under the name BioManguinhos alfa) in Brazil, Uplyso[®] in certain other Latin American countries and Elelyso[®] in the rest of the territories) for the treatment of Gaucher disease that has been approved for marketing in the United States, Brazil, Israel and other markets. The Company has a number of product candidates in varying stages of the clinical development process. The Company’s strategy is to develop proprietary recombinant proteins that are therapeutically superior to existing recombinant proteins currently marketed for the same indications.

The most advanced investigational drug in the Company’s product pipeline is pegunigalsidase alfa, or PRX-102, a therapeutic protein candidate for the treatment of Fabry disease, a rare, genetic lysosomal disorder, which is the subject of a phase III clinical program. The PRX-102 phase III clinical program includes three separate studies, referred to as the *BALANCE* study, the *BRIDGE* study and the *BRIGHT* study, each of which has been completed. The studies were designed to evaluate the potential for improved efficacy and better quality of life for adult patients with Fabry disease and to evaluate the safety of the Company’s drug/therapy. In addition, the phase III clinical program includes two extension studies in which subjects that participated in the Company’s phase I/II clinical trials and phase III clinical trials may enroll and continue to be treated with PRX-102.

On February 7, 2022, a Marketing Authorization Application (“MAA”) for PRX-102 was submitted to, and subsequently validated by, the European Medicines Agency (“EMA”). The submission was made after the October 8, 2021 meeting the Company held, together with the Company’s development and commercialization partner for PRX-102, Chiesi Farmaceutici S.p.A. (“Chiesi”), with the Rapporteur and Co-Rapporteur of the EMA regarding PRX-102. At the meeting, Chiesi and the Company discussed the scope of the then anticipated MAA submission for the European Union, and the Rapporteur and Co-Rapporteur were generally supportive of the planned MAA submission for PRX-102.

On April 28, 2021, the Company, together with Chiesi, announced the receipt of a Complete Response Letter (CRL) from the U.S. Food and Drug Administration (the “FDA”) regarding the biologics license application (“BLA”) for PRX-102 for the treatment of adult patients with Fabry disease. The PRX-102 BLA was submitted to the FDA on May 27, 2020 under the FDA’s Accelerated Approval pathway, and was subsequently accepted by the FDA and granted Priority Review designation. The CRL did not report any concerns relating to the potential safety or efficacy of PRX-102 in the submitted data package. In the CRL, the FDA noted that an inspection of the Company’s manufacturing facility in Carmiel, Israel, including the FDA’s subsequent assessment of any related FDA findings, is required before the FDA can approve a resubmitted BLA. Due to travel restrictions, the FDA was unable to conduct the required inspection during the review cycle. The FDA explained in the letter that it will continue to monitor the public health situation as well as travel restrictions, and is actively working to define an approach for scheduling outstanding inspections. With respect to the third-party facility in Europe at which fill and finish processes are performed for PRX-102, due to the novel coronavirus disease (“COVID-19”), the FDA reviewed records under Section 704(a)(4) of the U.S. Federal Food, Drug, and Cosmetic Act (the “FFDCA”) in lieu of a pre-licensing inspection. In the CRL, the FDA stated that it will communicate remaining issues to the facility in order to seek prompt resolution of any pending items. In addition to the foregoing, in the CRL, the FDA noted that Fabrazyme[®] (agalsidase beta), a therapy used to treat Fabry patients (marketed by Sanofi after the acquisition of Genzyme), was recently converted to full approval and is now an “available therapy,” which must be addressed in the context of any potential resubmission of a BLA for PRX-102.

The Company and Chiesi participated in a Type A (End of Review) meeting with the FDA on September 9, 2021. As part of the meeting minutes provided by the FDA, which included the preliminary comments and meeting discussion, the FDA, in principle, agreed that the data package proposed to the FDA for a BLA resubmission has the potential to support a traditional approval of PRX-102 for the treatment of Fabry disease. The planned data package for the BLA resubmission, given the changed regulatory landscape in the United States, will include the final two-year analyses of the

PROTALIX BIOTHERAPEUTICS, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

BALANCE study. The Company intends to continue to work collaboratively with the FDA to resolve the issues noted in the CRL and provide a new, alternative drug to Fabry patients.

In addition to PRX-102, the Company's product pipeline currently includes, among other candidates:

- (1) alidornase alfa, or PRX-110, a proprietary plant cell recombinant human Deoxyribonuclease 1, or DNase, which has successfully completed a phase II efficacy and safety study; the Company is continuing to evaluate potential strategic marketing partnerships and collaboration programs with biotechnology and pharmaceutical companies for this product candidate for various respiratory indications;
- (2) PRX-115, the Company's plant cell-expressed recombinant PEGylated uricase (urate oxidase) – a chemically modified enzyme to treat severe gout; and
- (3) PRX-119, the Company's plant cell-expressed PEGylated recombinant human DNase I product candidate being designed to elongate half-life in the circulation for NETs-related diseases.

Obtaining marketing approval with respect to any product candidate in any country is dependent on the Company's ability to implement the necessary regulatory steps required to obtain such approvals. The Company cannot reasonably predict the outcome of these activities.

On July 2, 2021, the Company entered into an At The Market Offering Agreement (the "Sales Agreement") with H.C. Wainwright & Co., LLC, as the Company's sales agent (the "Agent") which was amended on May 2, 2022. Pursuant to the terms of the Sales Agreement, the Company may sell from time to time through the Agent shares of its common stock, par value \$0.001 per share (the "Common Stock"), having an aggregate offering price of up to \$20.0 million (the "ATM Shares"). Upon execution of the Sales Agreement, the Company terminated the ATM Equity OfferingSM Sales Agreement it had entered into on October 1, 2020 with BofA Securities, Inc. ("BofA Securities"). During the term of the sales agreement with BofA Securities, the Company sold a total of 3,296,123 shares of Common Stock for total gross proceeds of approximately \$13.8 million. As of June 30, 2022, shares of Common Stock for total gross proceeds of approximately \$17.2 million remain available to be sold under the Sales Agreement.

On October 19, 2017, Protalix Ltd. and Chiesi entered into an Exclusive License and Supply Agreement (the "Chiesi Ex-US Agreement") pursuant to which Protalix Ltd. granted to Chiesi an exclusive license for all markets outside of the United States to commercialize pegunigalsidase alfa. On July 23, 2018, Protalix Ltd. entered into an Exclusive License and Supply Agreement with Chiesi (the "Chiesi US Agreement") with respect to the commercialization of pegunigalsidase alfa in the United States.

Under each of the Chiesi Ex-US Agreement and the Chiesi US Agreement (collectively, the "Chiesi Agreements"), Chiesi made an upfront payment to Protalix Ltd. of \$25.0 million in connection with the execution of each agreement. In addition, under the Chiesi Ex-US Agreement, Protalix Ltd. is entitled to additional payments of up to \$25.0 million in pegunigalsidase alfa development costs, capped at \$10.0 million per year, and to receive additional payments of up to \$320.0 million, in the aggregate, in regulatory and commercial milestone payments. Under the Chiesi US Agreement, Protalix Ltd. is entitled to payments of up to a maximum of \$20.0 million to cover development costs for pegunigalsidase alfa, subject to a maximum of \$7.5 million per year, and to receive additional payments of up to a maximum of \$760.0 million, in the aggregate, in regulatory and commercial milestone payments. To date, Protalix Ltd. has received the full amount of development costs to which it is entitled under the Chiesi Agreements.

Under the terms of both of the Chiesi Agreements, Protalix Ltd. will manufacture all of the pegunigalsidase alfa needed under the agreements, subject to certain exceptions, and Chiesi will purchase pegunigalsidase alfa from Protalix, subject to certain terms and conditions. Under the Chiesi Ex-US Agreement, Chiesi is required to make tiered payments of 15% to 35% of its net sales, depending on the amount of annual sales outside of the United States, as consideration for product supply. Under the Chiesi US Agreement, Chiesi is required to make tiered payments of 15% to 40% of its net sales, depending on the amount of annual sales in the United States, as consideration for product supply.

On May 13, 2021, the Company signed a binding term sheet with Chiesi pursuant to which the Company and Chiesi amended the Chiesi Agreements in order to provide the Company with near-term capital. In accordance with the term

PROTALIX BIOTHERAPEUTICS, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

sheet, Chiesi made a \$10.0 million payment to the Company in the second quarter of 2021 in exchange for a \$25.0 million reduction in a longer term regulatory milestone payment in the Chiesi EX-US Agreement. All other regulatory and commercial milestone payments remain unchanged. The Company also agreed to negotiate certain manufacturing related matters.

Since its approval by the FDA, taliglucerase alfa has been marketed by Pfizer Inc. (“Pfizer”) under the initial Exclusive License and Supply Agreement (the “Pfizer Agreement”). In October 2015, Protalix Ltd. and Pfizer entered into an amended exclusive license and supply agreement (the “Amended Pfizer Agreement”) pursuant to which the Company sold to Pfizer its share in the collaboration created under the Pfizer Agreement for the commercialization of Elelyso. As part of the sale, the Company agreed to transfer its rights to Elelyso in Israel to Pfizer while gaining full rights to it in Brazil. Under the Amended Pfizer Agreement, Pfizer is entitled to all of the revenues, and is responsible for 100% of expenses globally for Elelyso, excluding Brazil where the Company is responsible for all expenses and retains all revenues.

On June 18, 2013, the Company entered into a Supply and Technology Transfer Agreement (the “Brazil Agreement”) with Fundação Oswaldo Cruz (“Fiocruz”), an arm of the Brazilian Ministry of Health (the “Brazilian MoH”), for taliglucerase alfa. Fiocruz’s purchases of BioManguinhos alfataliglicerase to date have been significantly below certain agreed-upon purchase milestones and, accordingly, the Company has the right to terminate the Brazil Agreement. Notwithstanding the termination right, the Company is, at this time, continuing to supply BioManguinhos alfataliglicerase to Fiocruz and patients continue to be treated with BioManguinhos alfataliglicerase in Brazil.

COVID-19, which was declared by the World Health Organization to be a global pandemic on March 11, 2020, has had numerous adverse effects on the global economy. To date, the Company’s clinical trials have not been adversely affected by COVID-19, although certain practices the Company adopted during the earlier stages of the pandemic in its offices and facilities in an effort to promote social distancing resulted in minor delays in the performance of administrative activities outside of the clinical programs. The Company does not know the length of time that the pandemic and related disruptions will continue, the impact of governmental regulations or easing of regulations in response to the strengthening or weakening of the pandemic, or the degree of overall potentially permanent changes in consumer behavior that may be caused by the pandemic.

The Company believes that its cash and cash equivalents and short-term bank deposits as of June 30, 2022 are sufficient to satisfy the Company’s capital needs for at least 12 months from the date that these financial statements are issued. In addition, under the terms of the Company’s outstanding 7.50% Senior Secured Convertible Notes due 2024 (the “2024 Notes”), the Company is required to maintain a minimum cash balance of at least \$7.5 million.

b. Basis of presentation

The accompanying unaudited condensed consolidated financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”) for interim financial information. Accordingly, they do not include all of the information and notes required by GAAP for annual financial statements. In the opinion of management, all adjustments (of a normal recurring nature) considered necessary for a fair statement of the results for the interim periods presented have been included. Operating results for the interim period are not necessarily indicative of the results that may be expected for the full year.

These unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements in the Annual Report on Form 10-K for the year ended December 31, 2021, filed by the Company with the U.S. Securities and Exchange Commission (the “Commission”). The comparative balance sheet at December 31, 2021 has been derived from the audited financial statements at that date. There have been no material changes in our significant accounting policies as described in our consolidated financial statements for the year ended December 31, 2021.

PROTALIX BIOTHERAPEUTICS, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

c. Loss per share

Basic and diluted loss per share (“LPS”) are computed by dividing net loss by the weighted average number of shares of Common Stock attributable to common stockholders outstanding for each period. The calculation of diluted LPS does not include 32,960,732 and 32,982,043 shares of Common Stock underlying outstanding options and shares of Common Stock issuable upon conversion of the outstanding 2024 Notes and the exercise of outstanding warrants for the three and six months ended June 30, 2022, respectively, and 25,874,641 and 26,322,164 shares of Common Stock underlying outstanding options and shares of Common Stock issuable upon conversion of the Company’s then outstanding 7.50% Senior Secured Convertible Notes due 2021 (the “2021 Notes”) and the exercise of outstanding warrants for the three and six months ended June 30, 2021, respectively, because their effect would be anti-dilutive.

d. Revenue recognition

The Company accounts for revenue pursuant to Accounting Standards Codification, Topic 606, Revenue from Contracts with Customers (“ASC 606”). Under ASC 606, a contract with a customer exists only when: the parties to the contract have approved it and are committed to perform their respective obligations, the Company can identify each party’s rights regarding the distinct goods or services to be transferred (“performance obligations”), the Company can determine the transaction price for the goods or services to be transferred, the contract has commercial substance and it is probable that the Company will collect the consideration to which it will be entitled in exchange for the goods or services that will be transferred to the customer.

Revenues are recorded in the amount of consideration to which the Company expects to be entitled in exchange for performance obligations upon transfer of control to the customer.

1. Revenues from selling products

The Company recognizes revenues from selling goods at a point in time when control over the product is transferred to customers (upon delivery).

2. Revenue from Chiesi Agreements

The Company has identified two performance obligations in Chiesi agreements as follows: (1) the license and research and development services and (2) the contingent performance obligation regarding future manufacturing.

The Company determined that the license together with the research and development services should be combined into single performance obligation since Chiesi cannot benefit from the license without the research and development services. The research and development services are highly specialized and are dependent on the supply of the drug.

The future manufacturing is contingent on regulatory approvals of the drug and the Company deems these services to be separately identifiable from other performance obligations in the contract. Manufacturing services post-regulatory approval are not interdependent or interrelated with the license and research and development services.

The transaction price was comprised of fixed consideration and variable consideration (capped research and development reimbursements). Under ASC 606, the consideration to which the Company would be entitled upon the achievement of contractual milestones, which are contingent upon the occurrence of future events, are a form of variable consideration. The Company estimates variable consideration using the most likely method. Amounts included in the transaction price are recognized only when it is probable that a significant reversal of cumulative revenues will not occur. Prior to recognizing revenue from variable consideration, the Company uses significant judgment to determine the probability of significant reversal of such revenue.

Since the customer benefits from the research and development services as the entity performs the service, revenue from granting the license and the research and development services is recognized over time using the cost-to-cost method. The Company used significant judgment when it determined the costs expected to be incurred upon satisfying the identified performance obligation.

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Revenue from additional research and development services ordered by Chiesi is recognized over time using the cost-to-cost method.

3. Revenue from R&D services

Revenue from the research and development services is recognized over time using the cost-to-cost method since the customer benefits from the research and development services as the entity performs the service.

NOTE 2 - INVENTORIES

Inventories at June 30, 2022 and December 31, 2021 consisted of the following:

<i>(U.S. dollars in thousands)</i>	<u>June 30,</u> <u>2022</u>	<u>December 31,</u> <u>2021</u>
Raw materials	\$ 3,304	\$ 3,166
Work in progress	3,296	3,262
Finished goods	9,907	11,526
Total inventory	<u>\$ 16,507</u>	<u>\$ 17,954</u>

NOTE 3 – FAIR VALUE MEASUREMENT

The Company measures fair value and discloses fair value measurements for financial assets and liabilities. Fair value is based on the price that would be received from the sale of an asset, or paid to transfer a liability, in an orderly transaction between market participants at the measurement date.

The accounting standard establishes a fair value hierarchy that prioritizes observable and unobservable inputs used to measure fair value into three broad levels, which are described below:

Level 1: Quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs.

Level 2: Observable prices that are based on inputs not quoted on active markets, but corroborated by market data.

Level 3: Unobservable inputs are used when little or no market data is available. The fair value hierarchy gives the lowest priority to Level 3 inputs.

In determining fair value, the Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible and considers counterparty credit risk in its assessment of fair value.

The fair value of the financial instruments included in the working capital of the Company is usually identical or close to their carrying value.

As of June 30, 2022, the carrying amounts of short-term deposits approximate their fair values due to the stated interest rates, which approximate market rates.

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Based on a Level 3 measurement, as of June 30, 2022, the fair value of the \$28.75 million aggregate principal amount of the Company’s outstanding 2024 Notes is approximately \$32.3 million. The value of these notes was estimated by implementing the binomial model. The liability component was valued based on the Income Approach. The following parameters were used:

	2024 Notes
Stock price (USD)	1.09
Expected term	2.18
Risk free rate	2.94 %
Volatility	75.34 %
Yield	13.85 %

NOTE 4 – REVENUES

The following table summarizes the Company’s disaggregation of revenues:

<i>(U.S. dollars in thousands)</i>	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Pfizer	\$ 3,382	\$ 2,237	\$ 6,738	\$ 6,748
Brazil	\$ -	\$ 988	\$ 5,454	\$ 988
Chiesi	\$ -	\$ 18	\$ 218	\$ 18
Total revenues from selling goods	\$ 3,382	\$ 3,243	\$ 12,410	\$ 7,754
Revenues from license and R&D services	\$ 5,371	\$ 3,184	\$ 12,428	\$ 9,993

NOTE 5 – SHARE CAPITAL

a) Authorized Capital

On June 30, 2022, the Company held its 2022 Annual Meeting of Stockholders (the “Annual Meeting”). At the Annual Meeting, the Company’s stockholders, among other matters, approved an amendment to the Company’s Certificate of Incorporation, as amended, to increase the number of shares of Common Stock authorized for issuance from 120,000,000 to 144,000,000 (the “Charter Amendment”). The Charter Amendment was filed with the Secretary of State of the State of Delaware on August 2, 2022.

b) Stock based compensation

- 1) On February 25, 2022, the Company granted, with the approval of the Company’s compensation committee, the following:
 - I. 637,531 shares of restricted Common Stock to its President, Chief Executive Officer under the Company’s Amended and Restated 2006 Employee Stock Incentive Plan, as amended (the “Plan”). The Company estimated the fair value of the restricted stock on the date of grant to be approximately \$523,000.
 - II. 121,951 shares of restricted Common Stock to its Sr. Vice President, Chief Financial Officer under the Plan. The Company estimated the fair value of the restricted stock on the date of grant to be approximately \$100,000.
- 2) On June 30, 2022, the Company granted 10-year options to purchase 40,000 shares of Common Stock to a new director serving on the Company’s Board of Directors under the Plan. The options have an exercise price equal to \$1.09 per share and vest over a four-year period in 16 equal quarterly increments. Vesting of the options granted to the director is subject to automatic acceleration in full upon a Corporate Transaction or a Change in Control, as those terms are defined in the Plan, and are subject to certain other terms and

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conditions. The Company estimated the fair value of the options on the date of grant using the Black-Scholes option-pricing model to be approximately \$32,000 based on the following weighted average assumptions: share price equal to \$1.09; dividend yield of 0% for all years; expected volatility of 85.95%; risk-free interest rate of 3.025%; and expected life of six years.

- 3) At the Annual Meeting, the Company's stockholders, among other matters, adopted amendments to the Plan to increase the number of shares of Common Stock available under the Plan from 5,725,171 shares to 8,475,171 shares and to amend certain other terms of the Plan.

c) At-the-Market (ATM) Offering

During the quarter ended June 30, 2022, the Company sold, in the aggregate, 2,395,823 shares of Common Stock under the Sales Agreement. The Company generated aggregate gross proceeds equal to approximately \$2.8 million in connection with such sales.

NOTE 6 – SUBSEQUENT EVENTS

On August 1, 2022, the Company granted 10-year options to purchase 160,000 shares of Common Stock to a new employee of the Company under the Plan. The options have an exercise price equal to \$1.06 per share and vest over a four-year period in 16 equal quarterly increments. The Company estimated the fair value of the options on the date of grant using the Black-Scholes option-pricing model to be approximately \$124,000 based on the following weighted average assumptions: share price equal to \$1.06; dividend yield of 0% for all years; expected volatility of 85.95%; risk-free interest rate of 2.65%; and expected life of six years.

During July and August 2022, the Company sold, in the aggregate, 1,040,457 shares of Common Stock under the Sales Agreement. The Company generated aggregate gross proceeds equal to approximately \$1,152,650 in connection with such sales.

On July 17, 2022, the Company collected approximately \$1.1 million from sales to Pfizer. On July 18, 2022, the Company collected approximately \$1.1 million from expense reimbursements in connection with its collaboration with Chiesi.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS AND RISK FACTORS SUMMARY

You should read the following discussion and analysis of our financial condition and results of operations together with our financial statements and the consolidated financial statements and the related notes included elsewhere in this Form 10-Q and in our Annual Report on Form 10-K for the year ended December 31, 2021. Some of the information contained in this discussion and analysis, particularly with respect to our plans and strategy for our business and related financing, includes forward-looking statements within the meanings of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, including statements regarding expectations, beliefs, intentions or strategies for the future. When used in this report, the terms "anticipate," "believe," "estimate," "expect," "can," "continue," "could," "intend," "may," "plan," "potential," "predict," "project," "should," "will," "would" and words or phrases of similar import, as they relate to our company or our management, are intended to identify forward-looking statements. We intend that all forward-looking statements be subject to the safe-harbor provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are only predictions and reflect our views as of the date they are made with respect to future events and financial performance, and we undertake no obligation to update or revise, nor do we have a policy of updating or revising, any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events, except as may be required under applicable law. Forward-looking statements are subject to many risks and uncertainties that could cause our actual results to differ materially from any future results expressed or implied by the forward-looking statements as a result of several factors.

Examples of the risks and uncertainties include, but are not limited to, the following:

- risks related to the timing and progress of the preparation of a BLA resubmission for PRX-102 addressing the CRL;
- risks related to the timing, progress and likelihood of final approval by the FDA and the EMA of a resubmitted BLA and of an MAA, respectively, for PRX-102, and, if approved, whether the use of PRX-102 will be commercially successful;
- likelihood that the FDA, EMA or other applicable health regulatory authorities will approve an alternative dosing regimen;
- failure or delay in the commencement or completion of our preclinical studies and clinical trials, which may be caused by several factors, including: slower than expected rates of patient recruitment; unforeseen safety issues; determination of dosing issues; lack of effectiveness during clinical trials; inability to satisfactorily demonstrate non-inferiority to approved therapies; inability or unwillingness of medical investigators and institutional review boards to follow our clinical protocols; inability to monitor patients adequately during or after treatment
- the risk that the FDA, EMA, or other foreign regulatory authorities may not accept or approve a marketing application we file for any of our product candidates, and other risks relating to the review process;
- risks associated with the COVID-19 outbreak and variants which may adversely impact our business, preclinical studies and clinical trials;
- risks related to any transactions we may effect in the public or private equity markets to raise capital to finance future research and development activities, general and administrative expenses and working capital;
- risks relating to our evaluation and pursuit of strategic alternatives;
- the risk that the results of our clinical trials will not support the applicable claims of safety or efficacy and that our product candidates will not have the desired effects or will be associated with undesirable side effects or other unexpected characteristics;
- risks relating to our ability to maintain and manage our relationship with our collaborators, distributors or partners, including, but not limited to, Pfizer and Chiesi;
- risks related to the amount and sufficiency of our cash and cash equivalents;

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- risks relating to our ability to make scheduled payments of the principal of, to pay interest on or to refinance our outstanding notes or any other indebtedness;
- risks relating to changes to interim, topline or preliminary data from clinical trials that we announce or publish;
- risk of significant lawsuits, including stockholder litigation, which is common in the life sciences sector;
- our dependence on performance by third-party providers of services and supplies, including without limitation, clinical trial services;
- delays in our preparation and filing of applications for regulatory approval; the inherent risks and uncertainties in developing drug platforms and products of the type we are developing;
- the impact of development of competing therapies and/or technologies by other companies and institutions;
- potential product liability risks, and risks of securing adequate levels of product liability and other necessary insurance coverage;
- risks related to our supply of drug product to Pfizer;
- risks related to our expectations with respect to the potential commercial value of our product and product candidates;
- risks relating to the compliance by Fiocruz with its purchase obligations under our supply and technology transfer agreement, which may have a material adverse effect on us and may also result in the termination of such agreement;
- the possibility of infringing a third-party's patents or other intellectual property rights and the uncertainty of obtaining patents covering our products and processes and successfully enforcing our intellectual property rights against third-parties;
- risks relating to changes in healthcare laws, rules and regulations in the United States or elsewhere;
- and the possible disruption of our operations due to terrorist activities and armed conflict, including as a result of the disruption of the operations of certain regulatory authorities and of certain of our suppliers, collaborative partners, licensees, clinical trial sites, distributors and customers.

Recent Company Developments

• On June 30, 2022, we held our Annual Meeting at which our stockholders: (1) elected the six persons nominated by our Board of Directors to serve as directors of our Company; (2) approved, on a non-binding, advisory basis, the compensation of our named executive officers; (3) adopted the amendments to the Plan to increase the number of shares of common stock available under the plan from 5,725,171 shares to 8,475,171 shares and to amend certain other terms of the Plan; (4) approved the Charter Amendment; and (5) ratified the appointment of Kesselman & Kesselman, Certified Public Accountants (Isr.), a member of PricewaterhouseCoopers International Limited, as our independent registered public accounting firm for the fiscal year ending December 31, 2022. The Charter Amendment was filed with the Secretary of State of the State of Delaware on August 2, 2022.

• On June 30, 2022, Shmuel "Muli" Ben Zvi, Ph.D. joined our Board of Directors. Dr. Ben Zvi is the new Chairman of the Audit Committee and is also serving on the Compensation Committee.

In light of recent developments relating to the COVID-19 pandemic, the focus of healthcare providers and hospitals on fighting the virus, and consistent with the FDA's updated industry guidance for conducting clinical trials issued on March 18, 2020, we and our contract research organizations have made certain adjustments to the operation of our clinical trials in an effort to ensure the monitoring and safety of patients and minimize risk to trial integrity during the pandemic and generally, and we may need to make adjustments again in the future.

We are in close contact with our principal investigators and clinical sites and our clinical research organizations, which are primarily located in the United States and Europe, and to date, the COVID-19 pandemic has had a minimal effect on the performance of the phase III clinical trials of PRX-102 as many of the patients were already treated in home care settings. We were able to complete all three of the clinical trials.

We will continue to evaluate the impact of the COVID-19 pandemic and its variants on our business as we learn more and the impact of COVID-19 on our industry becomes more clear. We intend to continuously assess the impact of COVID-19 on our extension trials, expected timelines and costs.

ProCellEx: Our Proprietary Protein Expression System

- ProCellEx is our proprietary platform used to produce and manufacture recombinant proteins through plant cell-based expressions in suspension. ProCellEx consists of a comprehensive set of proprietary technologies and capabilities, including the use of advanced genetic engineering and plant cell culture technology, enabling us to produce complex, proprietary, and biologically equivalent proteins for a variety of human diseases. Our protein expression system facilitates the creation and selection of high-expressing, genetically-stable cell lines capable of expressing recombinant proteins.

- Our ProCellEx technology allows for many unique advantages, including: biologic optimization; an ability to handle complex protein expressions; flexible manufacturing with improvements through efficiencies, enhancements and/or rapid horizontal scale-ups; a simplified production process; elimination of the risk of viral contaminations from mammalian components; and intellectual property advantages.

- We are the first and only company to gain FDA approval of a protein produced through plant cell-based expression. Our ProCellEx platform uses flexible polyethylene disposable bioreactors and is optimized for plant cell cultures. As opposed to the large stainless-steel bioreactors commonly used for recombinant protein production, our ProCellEx bioreactors are easy to use and maintain and allow for the major advantage of rapid horizontal scale-up.


Plant Cell Production Advantages



Large-Scale Plant Cell Production Advantages

- Rapid product roll-out and development
- No risk of viral contamination from mammalian components
- Manufacturing maintained at room temperature
- Highly tolerant of small changes in production conditions, including Ph and temperature
- Easy to use and maintain, with no requirement for complicated monitors
- Maintain production parameter constant → high reproducibility
- Independent, separately controlled, disposable bioreactors - no "cross talking"
- Rapid and flexible horizontal scale-up in accordance with changing production needs


Mammalian Cell Expression



Chinese Hamster Ovary (CHO) cell lines

- High set-up costs involving large bioreactors
- Cell cultures require a complex medium; small changes in composition may affect product characteristics
- Require highly controlled growth conditions in the bioreactor (e.g., Ph., temp and CO₂)
- Susceptibility to viral contaminations

Bacteria and Yeast Cell Expression



Bacteria or yeast cell lines

- Limited to non-glycosylated simple proteins
- Cannot produce antibodies, enzymes, and other complex proteins

ProCellEx®: Protalix’s Differentiated Plant Cell Protein Expression Platform

Unique Genetic Engineering Tools

Generates improved tobacco plant cell lines expressing plant unique expression cassettes designed to produce therapeutic proteins with optimized pharmacokinetic and pharmacodynamic profiles

Customized Chemical Modifications

Produces complex glycosylated proteins with potentially improved biologic attributes, including reduced immunogenicity and enhanced protein stability/activity

Intellectual Property Advantages

Proprietary manufacturing processes and development of 2nd generation products, related to Composition of Matter protection and FTO (Freedom-to-Operate)



Optimized for Complexity

Ability to express proteins that are difficult to express in other cell-based systems

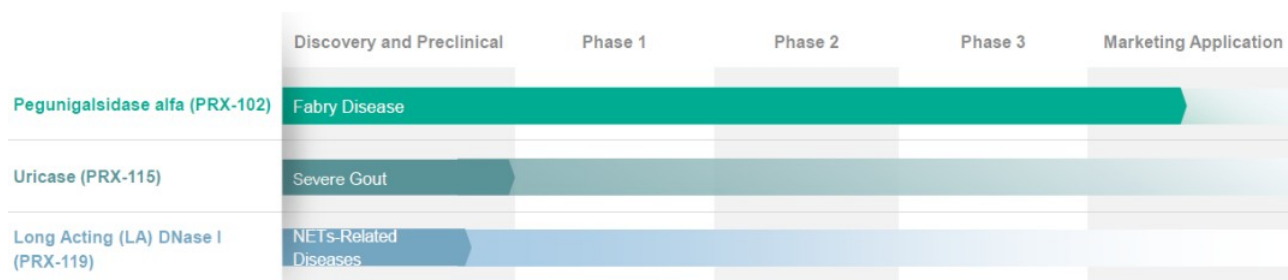
Streamlined Production Process

Simplified maintenance with high batch-to-batch reproducibility and no risk of viral contamination

Poised for Flexible Scale-Up

GMP-compliant infrastructure with modular capabilities allows for rapid horizontal scale-up to maintain production volume

Product Pipeline



Pegunigalsidase Alfa (PRX-102) for the Treatment of Fabry Disease

PRX-102 is our lead product candidate and we expect it to be the primary subject of our development efforts in the short-term. It is our proprietary, investigational, plant cell culture expressed enzyme, and a chemically modified stabilized version of, the recombinant α -Galactosidase-A protein, a lysosomal enzyme, under development for the treatment of Fabry disease. Fabry disease is a serious life-threatening rare genetic disorder. Fabry patients lack α -galactosidase-A resulting in the progressive accumulation of abnormal deposits of a fatty substance called globotriaosylceramide, or Gb₃, in blood vessel walls throughout their body. The abnormal storage of Gb₃ increases with time. The ultimate consequences of Gb₃ deposition range from episodes of pain and impaired peripheral sensation to end-organ failure, particularly of the kidneys, but also of the heart and the cerebrovascular system. Fabry disease occurs in one person per 40,000 to 60,000 males. The global market for Fabry disease was approximately \$1.9 billion in 2021, and forecasted to be approximately \$2.1 billion in 2022, and is forecasted to grow at a CAGR of approximately 10% from 2020-2027.

On February 7, 2022, the PRX-102 MAA was submitted to, and subsequently validated by, the EMA. The submission was made after the October 8, 2021 meeting we held, together with Chiesi, with the Rapporteur and Co-Rapporteur of the EMA regarding PRX-102. At the meeting, we and Chiesi discussed the scope of the anticipated MAA submission for the European Union, and the Rapporteur

and Co-Rapporteur were generally supportive of the planned MAA submission. The MAA submission includes a comprehensive set of preclinical, clinical and manufacturing data compiled from our completed and ongoing clinical studies evaluating PRX-102 as a potential treatment of Fabry disease in adults. The submission is supported by the 12-month interim data analysis generated from our phase III *BALANCE* clinical trial of PRX-102, which was released in June 2021. Data generated from the completed phase III *BRIDGE* clinical trial, the phase I/II clinical trial in naive or untreated patients, and from the extension studies with 1 mg/kg every two weeks were also included in the filing. In addition, the MAA includes data from the completed 12-month switch-over phase III *BRIGHT* clinical trial of adult patients treated with the 2 mg/kg every 4 weeks dosage.

The initial BLA submitted on May 27, 2020 included a comprehensive set of preclinical, clinical and manufacturing data compiled from our completed phase I/II clinical trial of PRX-102, including the related extension study succeeding our phase I/II clinical trial, interim clinical data from our *BRIDGE* study and safety data from our on-going clinical studies of PRX-102 in adult patients receiving 1 mg/kg every other week.

On April 28, 2021, we, together with Chiesi, announced the receipt of a CRL from the FDA regarding the BLA. The CRL did not report any concerns relating to the potential safety or efficacy of PRX-102 in the submitted data package. In the CRL, the FDA noted that an inspection of Protalix's manufacturing facility in Carmiel, Israel, including a subsequent assessment of any related FDA findings, is required before the FDA can approve a resubmitted BLA. Due to travel restrictions, the FDA was unable to conduct the required inspection during the review cycle. The FDA explained in the letter that it will continue to monitor the public health situation as well as travel restrictions, and is actively working to define an approach for scheduling outstanding inspections. With respect to the third-party facility in Europe at which fill and finish processes are performed for PRX-102, due to COVID-19, the FDA reviewed records under Section 704(a)(4) of the FDCA in lieu of a pre-licensing inspection. In the CRL, the FDA stated that it will communicate remaining issues to the facility in order to seek prompt resolution of any pending items. In addition to the foregoing, in the CRL, the FDA noted that agalsidase beta, a therapy used to treat Fabry patients, was recently converted to full approval and is now an "available therapy," which must be addressed in the context of any potential resubmission of a BLA for PRX-102.

We and Chiesi participated in a Type A (End of Review) meeting with the FDA on September 9, 2021 to discuss the FDA's requirements for a BLA resubmission. As part of the meeting minutes provided by the FDA, which included the preliminary comments and meeting discussion, the FDA, in principle, agreed that the clinical data package proposed to the FDA for a BLA resubmission has the potential to support a traditional approval of PRX-102 for the treatment of Fabry disease. The planned data package for the BLA resubmission, given the changed regulatory landscape in the United States, will include the final two-year analyses of the *BALANCE* study. We intend to continue to work collaboratively with the FDA resolve the issues noted in the CRL and provide a new, alternative drug to Fabry patients.

In January 2018, the FDA granted Fast Track designation to PRX-102. Fast Track designation is a process designed to facilitate the development and expedite the review of drugs and vaccines for serious conditions that fill an unmet medical need.

In December 2017, the European Commission granted Orphan Drug Designation for PRX-102 for the treatment of Fabry disease. Orphan Drug Designation for PRX-102 qualifies Chiesi for access to a centralized marketing authorization procedure, including applications for inspections and for protocol assistance. If the orphan drug designation is maintained at the time PRX-102 is approved for marketing in the European Union, if at all, we expect that PRX-102 will benefit from 10 years of market exclusivity within the European Union. The market exclusivity will not have any effect on Fabry disease treatments already approved at that time.

Key Trials and Design

Our clinical development program is designed to show that PRX-102 has a potential clinical benefit in adult Fabry patient populations when compared to currently marketed Fabry disease enzymes, agalsidase beta and agalsidase alfa. In preclinical studies, PRX-102 showed significantly longer half-life due to higher enzyme stability, enhanced activity in Fabry disease affected organs leading to reduction of the accumulated substrate and reduced immunogenicity, which together can potentially lead to improved efficacy through increased substrate clearance and significantly lower formation of anti-drug antibodies, or ADAs. Providing a meaningful improvement in the health and quality of life for Fabry patients being treated with PRX-102 represents a significant potential market opportunity.

Our phase III clinical program of PRX-102 for the treatment of Fabry disease includes three individual studies; the *BALANCE* study, the *BRIDGE* study and the *BRIGHT* study, all of which have been completed. In 2015, we completed a phase I/II clinical trial of PRX-102, which was a dose range study in ERT-naïve adult Fabry patients. In the phase III clinical program, we are studying two potential dosing regimens for PRX-102; 1 mg/kg every two weeks, with the potential for improved efficacy and safety, offering an

alternative to existing enzyme replacement therapies, and 2 mg/kg every four weeks, which has the potential to lower treatment burden versus existing treatments and provide a better quality of life for Fabry patients.

Patients that completed the *BALANCE*, *BRIDGE* and *BRIGHT* studies, and the extension of the phase I/II study, were offered the opportunity to continue PRX-102 treatment in one of two long-term open-label extension studies. Currently, 126 subjects that participated in the our PRX-102 clinical program have opted, with the advice of the treating physician, to continue PRX-102 treatment in one of our long-term extension studies; 10 subjects that completed an extension study from the phase I/II clinical trial, 18 subjects that completed the *BRIDGE* study; 69 subjects that completed the *BALANCE* study; and 29 subjects that completed the *BRIGHT* study. Of the 29 subjects that completed the *BRIGHT* study that enrolled in a long-term extension study, 26 of them are being treated with 2 mg/kg of PRX-102 every 4 weeks, with a total exposure of more than 100 patient years in the aggregate, and two are being treated with 1 mg/kg every two weeks.

In February 2020, we, together with Chiesi, announced an agreement with the FDA for the Initial Pediatric Study Plan (iPSP) for PRX-102. The joint announcement was made after completion of discussions with the FDA and receipt of confirmation from the FDA in an official “Agreement Letter” which outlines an agreed-upon approach to evaluate the safety and efficacy of PRX-102 in pediatric Fabry patients in a clinical trial to be performed by Chiesi with our collaborative efforts.

Phase III BALANCE Study

The pivotal *BALANCE* study was a 24-month, randomized, double blind, active control study of PRX-102 in adult Fabry patients with deteriorating renal function that was designed to evaluate the safety and efficacy of 1 mg/kg of PRX-102 administered every two weeks compared to agalsidase beta (Fabrazyme). The study was completed in October 2021, and topline results from the study were announced in April 2022. The clinical study report (CSR) for the *BALANCE* study was since completed and the final analysis confirmed the positive topline results and favorable tolerability profile. A total of 78 patients who were previously treated with agalsidase beta for at least one year with an estimated glomerular filtration rate (eGFR) slope at screening worse than $-2 \text{ mL/min/1.73 m}^2/\text{year}$ were enrolled in the study. Patients were randomized on a 2:1 ratio for switching to PRX-102 or continuing on agalsidase beta. A total of 77 patients were treated; 52 with PRX-102 and 25 with agalsidase beta. Approximately 40% of the enrolled patients were female.

The primary endpoint of the *BALANCE* study is the comparison in the annualized rate of decline of eGFR slope between the agalsidase beta and PRX-102 treatment arms. eGFR is considered a reliable and accepted test to measure kidney function and stage of kidney disease. Additional parameters evaluated include: cardiac assessment, Lyso-Gb₃ (a biomarker for monitoring Fabry patients during therapy), pain, quality of life, immunogenicity, Fabry Clinical Events, pharmacokinetics and other parameters.

As part of the September 2021 Type A End-of-Review meeting, the FDA, in principle, agreed that the proposed analysis of the *BALANCE* study demonstrating non-inferiority to agalsidase beta to be included in the data package for the PRX-102 BLA resubmission has the potential to support the approval of PRX-102 for the treatment of Fabry disease. Given the changed regulatory landscape in the United States with the full approval of agalsidase beta in March 2021 based on clinical endpoints, the primary analysis of the *BALANCE* study was changed from superiority to non-inferiority, as demonstrating superiority is no longer required under FDA guidelines. The primary endpoint of the *BALANCE* study compared the eGFR annualized changes (slope) between the two treatment arms in the intent-to-treat (ITT) analysis set (77 patients). The study met its pre-specified primary endpoint and demonstrated that PRX-102 was statistically non-inferior to agalsidase beta.

The median (95% confidence interval) of the eGFR slope in the PRX-102 arm was $-2.514 \text{ mL/min/1.73 m}^2/\text{year}$ ($-3.788, -1.240$) and $-2.155 \text{ mL/min/1.73 m}^2/\text{year}$ ($-3.805, -0.505$) in the agalsidase beta arm, demonstrating a large overlap in the confidence intervals of the two arms. The difference in medians (95% confidence interval) is $-0.359 \text{ mL/min/1.73 m}^2/\text{year}$ ($-2.444, 1.726$). The prespecified non-inferiority margin was met. Topline results in the PP analysis set (72 patients) are consistent with the ITT results, with difference in medians (95% confidence interval) of $-0.118 \text{ mL/min/1.73 m}^2/\text{year}$ ($-2.450, 2.213$).

The study population (ITT analysis set) was composed of 47 males (61.0%) and 30 females (39.0%), with a mean (range) age of 44.3 (18-60) years. The mean duration of prior treatment with agalsidase beta was approximately six years. At baseline, mean (SD) eGFR was $73.69 \text{ mL/min/1.73 m}^2$ (20.32) and median eGFR was $74.51 \text{ mL/min/1.73 m}^2$; mean (SD) eGFR slope was $-8.10 \text{ mL/min/1.73 m}^2/\text{year}$ (5.92) and median eGFR slope was $-7.25 \text{ mL/min/1.73 m}^2/\text{year}$.

Forty-seven (90.4%) patients in the PRX-102 arm experienced at least one treatment-emergent adverse event (TEAE) compared to 24 (96.0%) in the agalsidase beta arm. The number of events adjusted to 100 years of exposure is 572.36 events for the PRX-102 arm and 816.85 events for the agalsidase beta arm.

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Treatment-related adverse events were reported for 21 (40.4%) patients in the PRX-102 arm compared to 11 (44.0%) in the agalsidase beta arm. The number of treatment-related events adjusted to 100 years of exposure is 42.85 events for the PRX-102 arm and 152.91 events for the agalsidase beta arm.

Usage of infusion pre-medication was tapered down during the study, if possible, for all patients. At baseline, 21 (40.4%) patients in the PRX-102 arm used infusion premedication compared to 16 (64.0%) in the agalsidase beta arm. At the end of the study, only three out of 47 (6.4%) patients in the PRX-102 arm used infusion premedication compared to three out of 24 (12.5%) in the agalsidase beta arm. Even with this reduction in use of premedication, there were fewer reported infusion-related reactions with PRX-102: 11 (21.2%) patients in the PRX-102 arm experienced a total of 13 events compared to six (24.0%) patients experiencing a total of 51 events in the agalsidase beta arm. The number of infusion-related reactions adjusted to 100 infusions is 0.5 for the PRX-102 arm and 3.9 for agalsidase beta arm.

Assessment of anti-PRX-102 antibodies or anti-agalsidase beta antibodies, respectively, in the study indicated that, for the PRX-102 arm, 18 (34.6%) patients were ADA-positive at baseline, of which 17 (94.4%) had neutralizing antibody activity. For the agalsidase beta arm, eight (32.0%) patients were ADA-positive at baseline, of which seven (87.5%) had neutralizing antibody activity. At the end of the two-year study, 11 (23.4%) patients receiving PRX-102 were ADA-positive, of which seven (63.6%) had neutralizing antibody activity, while in the agalsidase beta arm six (26.1%) were ADA-positive and all six (100%) had neutralizing antibody activity.

Out of the 78 randomized patients, six patients discontinued the study: out of the five (9.4%) from the PRX-102 arm, one patient withdrew consent prior to the first infusion, two discontinued due to personal reasons, and two due to adverse events (one due to an unrelated adverse event and one due to a treatment-related adverse event); one (4%) patient from the agalsidase beta arm discontinued for personal reasons. There were no deaths in this study.

Considering that in the trial, patients in the PRX-102 arm were exposed for the first time to the novel enzyme tolerability data appear favorable for PRX-102 and in line with what was observed in the previous clinical studies of PRX-102.

Of the patients that completed the trial from both the PRX-102 and agalsidase beta treatment arms, 69 have opted, with the advice of the treating physician, to receive PRX-102 1 mg/kg every other week in a long-term open-label extension study (NCT03566017).

The planned data package for the BLA resubmission, given the changed regulatory landscape in the United States, will include the final two-year analyses of the *BALANCE* study.

Phase III BRIDGE Study

The *BRIDGE* study was a 12-month open-label, single arm switch-over study evaluating the safety and efficacy of pegunigalsidase alfa, 1 mg/kg infused every two weeks, in up to 22 Fabry patients previously treated with agalsidase alfa (Replagal; marketed by Takeda Pharmaceutical Company Limited (acquired Shire Plc)) for at least two years and on a stable dose for at least six months. The trial was completed in December 2019. Patients were screened and evaluated over three months while continuing agalsidase alfa treatment.

Final results of the data generated in the *BRIDGE* study showed substantial improvement in renal function as measured by mean annualized eGFR slope in both male and female patients. Twenty of 22 patients completed the 12-month treatment duration. Eighteen of the patients who completed the study opted to roll over to a long-term extension study and continue to be treated with PRX-102. In the study, the mean annualized eGFR slope of the study participants improved from -5.90 mL/min/1.73m²/year while on agalsidase alfa to -1.19 mL/min/1.73m²/year on PRX-102 in all patients. Male patients improved from -6.36 mL/min/1.73m²/year to -1.73 mL/min/1.73m²/year and female patients improved from -5.03 mL/min/1.73m²/year to -0.21 mL/min/1.73m²/year. Following the switch to PRX-102, there was a decrease in patients with progressing or fast progressing kidney disease which is consistent with the therapeutic goals for Fabry disease, as identified by Christoph Wanner, *et. al.*, in 2019, and most patients achieved a stable status post-switch.

PRX-102 was well-tolerated in the *BRIDGE* study, with all adverse events being transient in nature without sequelae. Of the 22 patients enrolled in the *BRIDGE* study, the majority of TEAEs were mild or moderate in severity, with two patients (9.1%) withdrawing from the therapy due to hypersensitivity reaction that was resolved. The most common moderate TEAEs were nasopharyngitis, headache and dyspnea.

An immunogenicity assessment indicated that four out of 20 patients (20%) developed persistent ADAs over the course of the study, of which two had neutralizing activity.

Baseline characteristics of the 20 patients that completed the study, ranging from ages 28 to 60 years, were as follows: mean eGFR 75.87 mL/min/1.73m² in males, and 86.14 mL/min/1.73m² in females and plasma lyso-Gb₃ were 51.81 nM and 13.81 nM in males and females, respectively. While lyso-Gb₃ levels remain slightly high, particularly within the male cohort, continuous reduction in lyso-Gb₃ levels was observed of 19.55 nM (32.35%) in males and 4.57 nM (29.81%) in females.

Of the patients that completed the trial, 18 have opted, with the advice of the treating physician, to continue receiving PRX-102 1 mg/kg every other week in a long-term open-label extension study (NCT03566017).

Phase III BRIGHT Study

The *BRIGHT* study was a multicenter, multinational open-label, switch-over study designed to evaluate the safety, efficacy and pharmacokinetics of treatment with 2 mg/kg of PRX-102 administered every four weeks for 52 weeks (a total of 14 infusions). The trial, which was completed in June 2020, enrolled 30 adult patients (24 males and 6 females) with mean (SD) age of 40.5 (11.3) years, ranging from 19 to 58 years previously treated with a commercially available ERT (agalsidase beta or agalsidase alfa), for at least three years and on a stable dose administered every two weeks. To determine eligibility for participation in the study, candidates were screened to identify and select Fabry patients with clinically stable kidney disease. The most common Fabry disease symptoms at baseline were acroparesthesia, heat intolerance, angiokeratomas and hypohydrosis. Patients who matched the criteria were enrolled in the study and switched from their current treatment of IV infusions every 2 weeks to 2 mg/kg of PRX-102 every 4 weeks for 12 months. Patients participating in the study were evaluated, among other disease parameters, to determine if their kidney disease had not further deteriorated while being treated with the 4-week dosing regimen as measured by eGFR and Lyso-Gb₃, as well as other parameters. In addition, participating patients were evaluated to assess the safety and tolerability of PRX-102.

We announced final results from the *BRIGHT* study in March 2022. The results indicate that 2 mg/kg of PRX-102 administered by intravenous infusion every four weeks was well tolerated, and Fabry disease assessed by eGFR slope and plasma lyso-Gb₃ was stable throughout PRX-102 treatment in adult Fabry patients. None of the patients without ADAs at screening developed treatment-induced ADAs following the switch to PRX-102 treatment.

All 30 patients received at least one dose of pegunigalsidase alfa, and 29 patients completed the one-year study. Of these 29 patients, 28 received the intended regimen of 2 mg/kg every 4 weeks throughout the entire study, while one patient was switched to 1 mg/kg pegunigalsidase alfa every two weeks per protocol at the 11th infusion. One patient withdrew from the study after the first infusion due to a traffic accident.

First infusions of PRX-102 were administered under controlled conditions at the investigation site. Based on the protocol-specified criteria, patients were able to receive their PRX-102 infusions at a home care setup once the Investigator and Sponsor Medical Monitor agreed that it was safe to do so. Safety and efficacy exploratory endpoints were assessed throughout the 52-week study.

Overall, 33 of 183 total treatment-emergent adverse events (TEAEs) reported in nine (30.0%) of the patients were considered treatment related; all were mild or moderate in severity and the majority were resolved at the end of the study. There were no serious or severe treatment-related TEAEs and no TEAEs lead to death or study withdrawal. Of the treatment-related TEAEs, 27 were infusion-related reactions (IRRs) and the remainder were single events of diarrhea, erythema, fatigue, influenza-like illness, increases urine protein/creatinine ratio, and urine positive for white blood cells. The 27 IRRs were reported in five (16.7%) patients, all male. All IRRs occurred during the infusion or within two hours post-infusion; no events were recorded between two and 24 hours post-infusion.

Study outcome measures show that plasma lyso-Gb₃ concentrations remained stable during the study with a mean change (±SE) of 3.01 nM (0.94) from baseline (19.36 nM ±3.35) to Week 52 (22.23 ±3.60 nM). Mean absolute eGFR values were stable during the 52-week treatment period, with a mean change from baseline of -1.27 mL/min/1.73 m² (1.39). Mean (SE) eGFR slope, at the end of the study, for the overall population, was -2.92 (1.05) mL/min/1.73m²/year indicating stability.

The study suggests that Fabry patients who are currently receiving ERT every 2 weeks may be successfully transitioned to PRX-102 2 mg/kg every 4 weeks as an effective and tolerable alternative treatment option. Additional long term data is being collected as part of the ongoing long term extension study (NCT03614234) of the 2 mg/kg PRX-102 every 4 weeks dose.

Following a survey of participants using the Quality of Life EQ-5D-5L questionnaire, responses indicate that patient perception of their own health remained high and stable throughout the 52-week study duration, with overall health mean (SE) scores of 78.3 (3.1) and 82.1 (2.9) at baseline and Week 52, respectively, in a 0 to 100 scale. Using the short-form Brief Pain Inventory, or, questionnaire, approximately 75% of study participants had an improvement or no change in average pain severity at Week 52 (compared to

baseline). The short-form BPI interference items also remained stable during the study. Pain-related results indicate that there was no increase and/or relapse in pain. No Fabry clinical events were reported during the study.

COVID-19 Impact on PRX-102 Clinical Trials

To date, the COVID-19 pandemic has had a minimal effect on the performance of the phase III clinical trials of PRX-102 as many of the patients were already treated in home care settings. We were able to complete all three studies. In a minimal amount of cases, patients that completed a trial were not able to be transferred into an extension study due to the pandemic restrictions, and, accordingly, the main trial was prolonged for the patients to permit the continuation of treatment.

Phase I/II Study

Our phase I/II clinical trial of PRX-102, which we completed in 2015, was a worldwide, multi-center, open-label, dose ranging study designed to evaluate the safety, tolerability, pharmacokinetics, immunogenicity and efficacy parameters of PRX-102 in adult patients with Fabry disease. Sixteen adult, naïve Fabry patients (9 male and 7 female) completed the trial, each in one of three dosing groups, 0.2 mg/kg, 1 mg/kg and 2 mg/kg. Each patient received IV infusions of PRX-102 every two weeks for 12 weeks, with efficacy follow-up after six-month and twelve-month periods. A majority of the patients who completed the trial opted to continue receiving PRX-102 in an open-label, 60-month extension study under which all patients were switched to receive 1 mg/kg of the drug, the selected dose for our *BALANCE* and *BRIDGE* studies.

The adult symptomatic, ERT-naïve Fabry disease patients enrolled in the phase I/II study were evaluated for Gb₃ levels in kidney biopsies and for plasma Lyso-Gb₃ concentration by the quantitative BLISS methodology. Biopsies were available from 14 patients. The outcome of $\geq 50\%$ reduction in the average number of Gb₃ inclusions per kidney PTC from baseline to Month 6 was demonstrated in 11 of 14 (78.6%) of the patients treated with PRX-102. The overall results demonstrate that PRX-102 reaches the affected tissue and reduces kidney Gb₃ inclusions burden and Lyso-Gb₃ in the circulation. A high correlation was found between the two Fabry disease biomarkers, reduction of kidney Gb₃ inclusions and the reduction of plasma Lyso-Gb₃ over six months of treatment.

Data was recorded at 24 months from 11 patients who completed 12 months of the long-term open-label extension trial that succeeded the phase I/II study. Patients who did not continue in the extension trial included: female patients who became or planned to become pregnant and therefore were unable to continue in accordance with the study protocol; and patients who relocated to a location where treatment was not available under the clinical study.

Results show that Lyso-Gb₃ levels decreased approximately 90% from baseline. Renal function remained stable with mean eGFR levels of 108.02 and 107.20 at baseline and 24 months, respectively, with a modest annual eGFR slope of -2.1. An improvement across all the gastrointestinal symptoms evaluated, including severity and frequency of abdominal pain and frequency of diarrhea, was noted. Cardiac parameters, including LVM, LVMI and EF, remained stable with no cardiac fibrosis development detected. In conclusion, an improvement of over 40% in disease severity was shown as measured by the Mainz Severity Score Index, or MSSSI, a score compiling the different elements of the disease severity including neurological, renal and cardiovascular parameters. In addition, an improvement was noted in each of the individual parameters of the MSSSI.

The majority of adverse events were mild-to-moderate in severity, and transient in nature. During the first 12 months of treatment, only three of 16 patients (less than 19%) formed ADAs of which two of these patients (less than 13%) had neutralizing antibodies. Importantly, however, the ADAs turned negative for all three of these patients following 12 months of treatment. The ADA positivity effect had no observed impact on the safety, efficacy or continuous biomarker reduction of PRX-102.

Commercialization Agreements with Chiesi Farmaceutici

We have entered into two exclusive global licensing and supply agreements for PRX-102 for the treatment of Fabry disease with Chiesi. The agreements have significant revenue potential for Protalix. Under the agreements, Protalix Ltd. has received \$50.0 million in upfront payments and was entitled to development cost reimbursements of up to \$45 million, up to more than \$1.0 billion in potential milestone payments and tiered royalties of 15% - 35% (ex-US) and 15% - 40% (US).

On October 19, 2017, Protalix Ltd. and Chiesi entered into the Chiesi Ex-US Agreement pursuant to which Chiesi was granted an exclusive license for all markets outside of the United States to commercialize PRX-102. Under the Chiesi Ex-US Agreement, Chiesi made an upfront payment to Protalix Ltd. of \$25.0 million in connection with the execution of the agreement, and Protalix Ltd. was entitled to additional payments of up to \$25.0 million in development costs in the aggregate, capped at \$10.0 million per year. Protalix Ltd. is also eligible to receive additional payments of up to a maximum of \$320.0 million in regulatory and commercial milestone payments. Protalix Ltd. agreed to manufacture all of the PRX-102 needed for all purposes under the agreement, subject to certain exceptions, and Chiesi will purchase PRX-102 from Protalix Ltd., subject to certain terms and conditions. Chiesi is required to

make tiered payments of 15% to 35% of its net sales, depending on the amount of annual sales, as consideration for the supply of PRX-102.

On July 23, 2018, Protalix Ltd. entered into the Chiesi US Agreement with respect to the development and commercialization of PRX-102 in the United States. Protalix Ltd. received an upfront, non-refundable, non-creditable payment of \$25.0 million from Chiesi and was entitled to additional payments of up to a maximum of \$20.0 million to cover development costs for PRX-102, subject to a maximum of \$7.5 million per year. Protalix Ltd. is also eligible to receive additional payments of up to a maximum of \$760.0 million, in the aggregate, in regulatory and commercial milestone payments. Chiesi will also make tiered payments of 15% to 40% of its net sales under the Chiesi US Agreement to Protalix Ltd., depending on the amount of annual sales, subject to certain terms and conditions, as consideration for product supply.

On May 13, 2021, we signed a binding term sheet with Chiesi pursuant to which we and Chiesi amended the Chiesi Agreements in order to provide our company with near-term capital. Chiesi agreed to make a \$10.0 million payment to us before the end of the second quarter of 2021 in exchange for a \$25.0 million reduction in a longer term regulatory milestone payment provided in the Chiesi EX-US Agreement. All other regulatory and commercial milestone payments remain unchanged. We received the payment in June 2021. We also agreed to negotiate certain manufacturing related matters.

Elelyso® for the Treatment of Gaucher Disease

Elelyso (taliglucerase alfa), our first commercial product, was approved by the FDA in 2012 for injection as an enzyme replacement therapy (ERT) for the long-term treatment of adult patients with a confirmed diagnosis of type 1 Gaucher disease. In August 2014, the FDA approved Elelyso for injection for pediatric patients. Elelyso is the first plant cell derived recombinant protein to be approved by the FDA for the treatment of Gaucher disease and is now approved in over 20 markets.

Gaucher disease, also known as glucocerebrosidase, or GCD, deficiency, is a rare genetic autosomal recessive disorder and one of the most common Lysosomal Storage Disorders, or LSDs, in the world. It is one of a group of disorders that affect specific enzymes that normally break down fatty substances for reuse in the cells. If the enzymes are missing or do not work properly, the substances can build up and become toxic. Gaucher disease occurs when a lipid called glucosylceramide accumulates in the cells of the bone marrow, lungs, spleen and liver, and sometimes the brain. Gaucher disease symptoms can include fatigue, anemia, easy bruising and bleeding, severe bone pain and easily broken bones, and distended stomach due to an enlarged spleen and thrombocytopenia. Epidemiology of Gaucher disease varies; recent literature provides that prevalence of Gaucher disease ranges from 0.70 to 1.75 per 100,000 in the general population. In people of Ashkenazi Jewish heritage, estimates of occurrence vary from approximately 1 in 400 to 1 in 850 people.

The global market for Gaucher disease, that includes Sanofi's Cerezyme®, Shire's (acquired by Takeda Pharmaceutical Company Limited) Vpriv®, and Sanofi's Cerdelga®, among others, is forecasted to be approximately \$1.5 billion and \$1.6 billion in 2021 and 2022, respectively, and to grow at a CAGR of approximately 8.6% from 2020-2027.

Commercialization Agreements for Elelyso

We have licensed to Pfizer the global rights to Elelyso in all markets excluding Brazil. Pfizer retains 100% of revenue and reimburses 100% of direct costs. We manufacture drug substance for Pfizer, subject to certain terms and conditions.

For the first 10-year period after the execution of our Amended Pfizer Agreement, we have agreed to sell drug substance to Pfizer for the production of Elelyso, and Pfizer maintains the right to extend the supply period for up to two additional 30-month periods subject to certain terms and conditions. In a subsequent amendment, we agreed that after the completion of the first 10-year supply period, the supply term would automatically extend for a five-year period.

We maintain distribution rights to Elelyso in Brazil through a supply and technology transfer agreement with Fiocruz, an arm of the Brazilian MoH.

Alidornase Alfa (PRX-110)

Alidornase alfa is our chemically-modified plant cell expressed recombinant human DNase I, administered via inhalation. Recombinant human DNase I enzymatically cleaves DNA but its activity is inhibited by actin, which is present in the blood and other target organs. PRX-110 is designed to be less susceptible to actin inhibition and have higher affinity to DNA, thus enhancing enzymatic activity. In-vitro studies have shown PRX-110 to have a highly improved catalytic efficiency and affinity to DNA, compared to dornase alfa (Pulmozyme®, currently the only commercially available DNase therapy), even more so in the presence of

actin. We are continuing to evaluate potential strategic marketing partnerships and collaboration programs with biotechnology and pharmaceutical companies for this product candidate for various respiratory indications.

Uricase (PRX-115)

PRX-115 is our plant cell-expressed recombinant PEGylated uricase (urate oxidase) – a chemically modified enzyme under development for the potential treatment of severe gout. Gout is the most common inflammatory arthritis in the United States, affecting an estimated 9.2 million adults. Gout is caused by factors that elevate serum uric acid, or sUA, levels, which may include diet or genetic predisposition and environmental factors leading to hyperuricemia and tissue deposition of monosodium urate crystals, tophi, in joints and soft tissues, causing acute and chronic inflammation, and is characterized by recurrent flares. Gout flares lead to substantial morbidity by causing severe pain, reduced quality of life, decreased physical function, increased healthcare costs, and lost economic productivity. Furthermore, gout is strongly associated with metabolic syndrome, and may contribute to myocardial infarction, type 2 diabetes mellitus, chronic kidney disease, or CKD, and premature mortality.

Severe gout is generally described as a state of gout in which there is the presence of monosodium urate crystals with any of the following: frequent recurrent gout flares, chronic gouty arthritis, subcutaneous tophi or imaging disease elements of gout. An estimated approximately 2% of the gout population is considered to have chronic refractory disease, and we believe the frequency of severe gout is even higher.

Currently available urate-lowering therapies, or ULTs, can be effective in treating gout. However, we believe that new effective, safe therapies are needed to treat severe gout and chronic refractory gout regardless of treatment history. One treatment option may be a therapeutic use of the uricase enzyme which converts uric acid to allantoin, which is easily eliminated through urine. The uricase enzyme does not exist naturally in humans. To date, two variants of recombinant uricases are approved for marketing: (i) Krystexxa[®] (Pegloticase) for treatment of chronic gout refractory to conventional therapy (gout patients that have contraindication/failure of other lowering uric acid treatments) and (ii) Elitek[®], indicated for the treatment of tumor lysis syndrome but not gout. Both have a black box warning for anaphylaxis, induce strong immunogenic reactions and have other major side-effects. In particular, 89% of patients treated with Krystexxa developed an immunogenic response associated with a failure to maintain normalization of serum uric acid levels over a 6-month therapy cycle. In addition, a recent phase IV study demonstrates that co-treatment with Krystexxa and methotrexate increases efficacy and tolerability in patients with uncontrolled gout. Krystexxa is no longer marketed in the European Union for commercial reasons.

We use ProCellEx to express an optimized recombinant uricase enzyme under development for the potential treatment of severe gout which we are designing to lower uric acid levels while having low immunogenicity and increased half-life in the circulation. Pre-clinical data demonstrates stable PK profile and long half-life, low immunogenic risk and high specific activity supporting the potential of PRX-115 to be a safe and effective treatment for severe gout. We initiated toxicity studies of PRX-115 in the first quarter of 2022.

PRX-119

PRX-119 is our plant cell-expressed PEGylated recombinant human DNase I product candidate being designed to elongate half-life in the circulation for NETs-related diseases. NETs, Neutrophil extracellular traps, are web-like structures, released by activated neutrophils that trap and kill a variety of microorganisms. NETs are composed of DNA, histones, antimicrobial and pro-inflammatory proteins. Excessive formation or ineffective clearance of NETs can cause different pathological effects. NETs formation has been observed in various autoimmune, inflammatory and fibrotic conditions, diverse forms of thrombosis, cancer and metastasis. According to scientific literature, animal studies have demonstrated that DNase treatment reduces NETs toxicity. Our proprietary modified DNase I design for long and customized systemically circulating in the bloodstream, may potentially enable effective treatment of acute and chronic conditions.

Intellectual Property

A key element of our overall strategy is to establish a broad portfolio of patents to protect our proprietary technology, proprietary product and product candidates and their methods of use. As of June 30, 2022, we hold a broad portfolio of over 80 patents in Europe, the United States, Israel and additional countries worldwide, as well as over 30 pending patent applications.

Scientific Presentations

The five poster presentations listed below were available at the 2022 Program: 7th Update on Fabry Disease: Biomarkers, Progression and Treatment Opportunities. The program was supported by Kidneys for Life, a Registered UK Charitable Organization (Manchester, UK), and took place May 29, 2022 through May 31, 2022.

“Safety and Efficacy of Pegunigalsidase Alfa vs Agalsidase Beta on Renal Function in Fabry Disease: 24-Month Results from the Phase III Randomized, Double-blind, BALANCE Study”

“Long-term Safety and Efficacy of Pegunigalsidase Alfa: A Multicenter Extension Study in Adult Patients with Fabry Disease”

“Tolerability and Infusion Duration of Pegunigalsidase Alfa in Patients with Fabry Disease: Data from 5 Completed Clinical Trials”

“Switching from Agalsidase Alfa to Pegunigalsidase Alfa to Treat Patients with Fabry Disease: 1 Year of Treatment Data from BRIDGE, a Phase 3 Open-label Study”

“Safety and Efficacy of Pegunigalsidase Alfa Administered Every 4 Weeks in Patients with Fabry Disease: Results from the Phase 3, Open-label, BRIGHT Study”

Research & Development

We continuously work on the further development of our ProCellEx plant cell expression technology and bioreactor system. In addition, we are working on the development of new products, each in different initial stages of development, for specific products for which there are unmet needs in terms of efficacy and safety. Our development strategy focuses on the utilization of different modification approaches and development improvements, customized for each protein product, in all stages of expression and development.

Critical Accounting Policies

Our significant accounting policies are more fully described in Note 1 to our consolidated financial statements appearing in this Quarterly Report. There have been no material changes to our critical accounting policies since we filed our Annual Report on Form 10-K for the year ended December 31, 2021.

The discussion and analysis of our financial condition and results of operations is based on our financial statements, which we prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenues and expenses during the reporting periods. On an ongoing basis, we evaluate such estimates and judgments, including those described in greater detail below. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

The full extent to which the COVID-19 pandemic will directly or indirectly impact our financial condition, liquidity, or results of operations will depend on future developments that are highly uncertain, including as a result of new information that may emerge concerning COVID-19 and its variants and the actions taken to contain or treat COVID-19 and its variants, as well as the economic impact on local, regional, national and international customers and markets.

Results of Operations

Three months ended June 30, 2022 compared to the three months ended June 30, 2021

Revenues from Selling Goods

We recorded revenues from selling goods of \$3.4 million during the three months ended June 30, 2022, an increase of \$0.2 million, or 6%, compared to revenues of \$3.2 million for the three months ended June 30, 2021. The increase of \$1.1 million in sales to Pfizer, resulting from timing differences, was partially offset by a decrease of \$1.0 million in sales to Brazil.

Revenues from License and R&D Services

We recorded revenues from license and R&D services of \$5.4 million for the three months ended June 30, 2022, an increase of \$2.2 million, or 69%, compared to revenues of \$3.2 million for the three months ended June 30, 2021. Revenues from license and R&D services are comprised primarily of revenues we recognized in connection with the Chiesi Agreements.

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Cost of Goods Sold

Cost of goods sold was \$4.1 million for the three months ended June 30, 2022, a decrease of \$0.6 million, or 13%, from cost of goods sold of \$4.7 million for the three months ended June 30, 2021. The decrease in cost of goods sold was primarily the result of decreased manufacturing costs due to higher yields and lower wastage.

Research and Development Expenses

For the three months ended June 30, 2022, our total research and development expenses were approximately \$7.6 million comprised of approximately \$4.4 million in subcontractor-related expenses, approximately \$1.6 million of salary and related expenses, approximately \$0.7 million of materials-related expenses and approximately \$0.9 million of other expenses. For the three months ended June 30, 2021, our total research and development expenses were approximately \$7.7 million comprised of approximately \$5.1 million in subcontractor-related expenses, approximately \$1.6 million of salary and related expenses, approximately \$0.2 million of materials-related expenses and approximately \$0.8 million of other expenses.

Total decrease in research and developments expenses was \$0.1 million, or 1%, from the three months ended June 30, 2022 compared to the three months ended June 30, 2021.

We expect research and development expenses to continue to be our primary expense as we enter into a more advanced stage of preclinical and clinical trials for certain of our product candidates.

Selling, General and Administrative Expenses

Selling, general and administrative expenses were \$2.6 million for the three months ended June 30, 2022, a decrease of \$0.6 million, or 19%, compared to \$3.2 million for the three months ended June 30, 2021. The decrease was primarily due to a decrease in salary-related and selling costs.

Financial Expenses, Net

Financial income, net were \$0.2 million for the three months ended June 30, 2022, compared to financial expenses, net of \$2.1 million for the three months ended June 30, 2021. The decrease resulted primarily from lower interest and debt amortization costs due to a decrease in our outstanding notes from an aggregate principal amount of \$57.92 million of 2021 Notes to an aggregate principal amount of \$28.75 million of 2024 Notes, and an increase in the exchange rate of New Israeli Shekels for U.S. Dollars over the period.

Six months ended June 30, 2022 compared to the six months ended June 30, 2021

Revenues from Selling Goods

We recorded revenues from selling goods of \$12.4 million during the six months ended June 30, 2022, an increase of \$4.6 million, or 59%, compared to revenues of \$7.8 million for the six months ended June 30, 2021. The increase resulted primarily from an increase of \$4.5 million in sales to Brazil.

Revenues from License and R&D Services

We recorded revenues from license and R&D services of \$12.4 million for the six months ended June 30, 2022, an increase of \$2.4 million, or 24%, compared to revenues of \$10.0 million for the six months ended June 30, 2021. Revenues from license and R&D services are comprised primarily of revenues we recognized in connection with the Chiesi Agreements.

Cost of Goods Sold

Cost of goods sold was \$10.1 million for the six months ended June 30, 2022, an increase of \$0.6 million, or 6%, from cost of goods sold of \$9.5 million for the six months ended June 30, 2021. The increase in cost of goods sold was due primarily to an increase in sales of goods which was partially offset by higher production yields.

Research and Development Expenses

For the six months ended June 30, 2022, our total research and development expenses were approximately \$16.3 million comprised of approximately \$10.2 million in subcontractor-related expenses, approximately \$3.7 million of salary and related expenses, approximately \$0.9 million of materials-related expenses and approximately \$1.5 million of other expenses. For the six

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months ended June 30, 2021, our total research and development expenses were approximately \$14.8 million comprised of approximately \$9.4 million in subcontractor-related expenses, approximately \$3.6 million of salary and related expenses, approximately \$0.4 million of materials-related expenses and approximately \$1.4 million of other expenses.

The increase in research and developments expenses of \$1.5 million, or 10%, from the six months ended June 30, 2022 compared to the six months ended June 30, 2021 resulted primarily from a \$0.8 million increase in subcontractor-related expenses in connection with regulatory submissions for PRX-102, and a \$0.5 million increase in materials-related expenses.

We expect research and development expenses to continue to be our primary expense as we enter into a more advanced stage of preclinical and clinical trials for certain of our product candidates.

Selling, General and Administrative Expenses

Selling, general and administrative expenses were \$5.8 million for the six months ended June 30, 2022, a decrease of \$0.5 million, or 8%, compared to \$6.3 million for the six months ended June 30, 2021. The decrease resulted primarily from a decrease in salary-related expenses.

Financial Expenses, Net

Financial expenses, net were \$0.2 million for the six months ended June 30, 2022, a decrease of \$3.7 million, or 95%, compared to \$3.9 million for the six months ended June 30, 2021. The decrease resulted primarily from lower interest and debt amortization costs due to a decrease in our outstanding notes from an aggregate principal amount of \$57.92 million of 2021 Notes to an aggregate principal amount of \$28.75 million of 2024 Notes, and an increase in the exchange rate of New Israeli Shekels for U.S. Dollars over the period.

Liquidity and Capital Resources

Our sources of liquidity include our cash balances and bank deposits. At June 30, 2022, we had \$28.6 million in cash and cash equivalents and short term bank deposits. We have primarily financed our operations through equity and debt financings, business collaborations, and grants funding.

During the year ended December 31, 2021, we raised gross proceeds equal to approximately \$8.8 million from sales of common stock under our ATM program through the sale of 1,867,552 shares of our common stock. In addition, we raised gross proceeds of approximately \$40.2 million from a public offering of our common stock before deducting the underwriting discount and estimated expenses of the offering. In connection with the offering, we issued 8,749,999 shares of our common stock at a purchase price per share of \$4.60. During the six months ended June 30, 2022, we raised gross proceeds equal to approximately \$2.8 million from sales of common stock under our ATM program through the sale of 2,395,823 shares of our common stock.

On August 25, 2021, we completed exchanges, or the Exchanges, of a substantial majority of our then outstanding 7.50% Senior Secured Convertible Notes due 2021, or the 2021 Notes, with institutional note holders of a substantial majority of the 2021 Notes. The Exchanges involved the exchange of an aggregate of \$54.65 million principal amount of our 2021 Notes for an aggregate of \$28.75 million principal amount of newly issued 7.50% Senior Secured Convertible Notes due 2024, or the 2024 Notes, \$25.90 million in cash, and approximately \$1.1 million in cash representing accrued and unpaid interest through the closing date. The initial conversion rate for the 2024 Notes is 563.2216 shares of our common stock for each \$1,000 principal amount of 2024 Notes (equivalent to an initial conversion price of approximately \$1.7755 per share of common Stock, subject to adjustment in certain circumstances. This initial conversion price represents a premium of approximately 32.5% relative to the closing price of the common stock on the NYSE American on August 13, 2021. After giving effect to the Exchanges, \$3.27 million aggregate principal amount of the 2021 Notes remained outstanding. On November 15, 2021, all of the then outstanding 2021 Notes matured and were paid in full.

The 2024 Notes were issued pursuant to the Indenture dated as of August 24, 2021 between us, the guarantors party thereto, The Bank of New York Mellon Trust Company, N.A., as trustee and Wilmington Savings Fund Society, FSB, as collateral agent, or the 2024 Indenture. Interest on the Notes are payable semi-annually at a rate of 7.50% per annum. The 2024 Notes will mature on September 1, 2024, unless earlier purchased, converted, exchanged or redeemed, and are guaranteed by our subsidiaries. The 2024 Notes are secured by perfected liens on all of our assets, including those of our subsidiaries. Under the terms of the 2024 Indenture, we are required to comply with certain covenants, including the requirement to maintain a minimum cash balance of at least \$7.5 million. Failure to comply with such covenants may result in an event of default under the 2024 Indenture and, accordingly, may result in the acceleration of the payment of the notes or in additional interest payments. As of June 30, 2022, we were in compliance with all covenants.

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We believe that our cash and cash equivalents and short-term bank deposits as of June 30, 2022 are sufficient to satisfy our capital needs for at least 12 months from the date that these financial statements are issued.

Cash Flows

Net cash used in operations was \$13.2 million for the six months ended June 30, 2022. The net loss for the six months ended June 30, 2022 of \$7.6 million was increased by a \$2.6 million decrease in contracts liability, a \$4.9 million decrease in accounts payable and accruals and \$1.0 million financial income, net (mainly exchange differences), and was partially offset by a \$1.4 million decrease in inventories and a \$1.1 million in share-based compensation. Net cash used in investing activities for the six months ended June 30, 2022 was \$15.9 million and consisted primarily of investment in bank deposits. Net cash provided by financing activities was \$2.6 million resulting mainly from the sale of common stock under our ATM program.

Net cash used in operations was \$3.3 million for the six months ended June 30, 2021. In response to the COVID-19 pandemic, a higher number of subjects in our ongoing clinical trials opted for home care treatments over in-site treatments which resulted in an immaterial amount of additional expenses. The net loss for the six months ended June 30, 2021 of \$16.7 million was increased by a \$1.6 million increase in accounts receivable and other assets, and was partially offset by a \$12.3 million increase in contracts liability, a \$1.9 million of amortization of debt issuance costs and debt discount and \$1.4 million in share-based compensation. Net cash used in investing activities for the six months ended June 30, 2021 was \$23.1 million and consisted primarily of a net increase in bank deposits. Net cash provided by financing activities was \$42.1 million resulting from the sale of common stock under our former ATM program and from our public offering of common stock, net of the promissory note payment.

Future Funding Requirements

We expect to continue to incur significant expenditures in the near future as we increase our research and developments efforts with respect to our product candidates given the receipt of the CRL from the FDA discussed above, we expect to incur additional expenses in connection with any resubmission. We cannot anticipate the costs or the timing of the occurrence of such costs. In addition, to the extent we need to obtain additional financing in connection with this process or with any additional clinical testing that may be required, it may be more difficult for us to do so given the volatility of the price of our common stock. Our material cash needs for the next 24 months will include, among other expenses, (i) costs of preclinical and clinical trials, (ii) employee salaries, (iii) payments for rent and operation of our manufacturing facilities, (iv) fees to our consultants and legal advisors, patent advisors and fees for service providers in connection with our research and development efforts and (v) payment of interest on our outstanding 2024 Notes. We believe that our cash and cash equivalents and short term bank deposits are sufficient to satisfy our capital needs for at least 12 months.

As discussed above, we may be required to raise additional capital to develop our product candidates and continue research and development activities. Our ability to raise capital, and the amounts of necessary capital, will depend on many other factors, including:

- our efforts, combined with those of Chiesi, to file for resubmission with the FDA and to commercialize PRX-102;
- our progress in commercializing BioManguinhos alfataliglycerase in Brazil;
- the duration and cost of discovery and preclinical development and laboratory testing and clinical trials for our product candidates;
- the timing and outcome of regulatory review of our product candidates;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims and other intellectual property rights; and
- the costs associated with any litigation claims.

We expect to finance our future cash needs through corporate collaborations, licensing or similar arrangements, public or private equity offerings and/or debt financings. We currently do not have any commitments for future external funding, except with respect to the development-related payments and milestone payments that may become payable under the Chiesi Agreements. On July 2, 2021, we entered into the Sales Agreement in connection with a new ATM program, as amended on May 2, 2022, pursuant to which we may sell from time to time through the Agent ATM Shares having an aggregate offering price of up to \$20.0 million. On the same date, we terminated our former ATM program. As of June 30, 2022, shares of Common Stock for total gross proceeds of approximately \$17.2 million remain available to be sold under the Sales Agreement.

Effects of Currency Fluctuations

Currency fluctuations could affect us through increased or decreased acquisition costs for certain goods and services and salaries expenses. We do not believe currency fluctuations have had a material effect on our results of operations during the six months ended June 30, 2022 and June 30, 2021.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements as of each of June 30, 2022 and June 30, 2021.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Currency Exchange Risk

The currency of the primary economic environment in which our operations are conducted is the U.S. dollar. Most of our revenues and approximately 65% of our expenses and capital expenditures, as well as the repayment of our 2021 Notes in 2021, are and were incurred in dollars, and a significant source of our financing has been provided in U.S. dollars. Since the dollar is the functional currency, monetary items maintained in currencies other than the dollar are remeasured using the rate of exchange in effect at the balance sheet dates and non-monetary items are remeasured at historical exchange rates. Revenue and expense items are remeasured at the average rate of exchange in effect during the period in which they occur. Foreign currency translation gains or losses are recognized in the statement of operations.

Approximately 31% of our costs, including salaries, expenses and office expenses, are incurred in NIS. Inflation in Israel may have the effect of increasing the U.S. dollar cost of our operations in Israel. If the U.S. dollar declines in value in relation to the NIS, it will become more expensive for us to fund our operations in Israel. A revaluation of 1% of the NIS will affect our loss before tax by less than 1%. The exchange rate of the U.S. dollar to the NIS, based on exchange rates published by the Bank of Israel, was as follows:

	<u>June 30,</u>		<u>December 31,</u>
	<u>2022</u>	<u>2021</u>	<u>2021</u>
Average rate for period	3.272	3.265	3.230
Rate at period-end	3.500	3.260	3.110

To date, we have not engaged in hedging transactions. In the future, we may enter into currency hedging transactions to decrease the risk of financial exposure from fluctuations in the exchange rate of the U.S. dollar against the NIS. These measures, however, may not adequately protect us from material adverse effects due to the impact of inflation in Israel.

Interest Rate Risk

Our exposure to market risk is confined to our cash and cash equivalents. We consider all short term, highly liquid investments, which include short-term deposits with original maturities of three months or less from the date of purchase, that are not restricted as to withdrawal or use and are readily convertible to known amounts of cash, to be cash equivalents. The primary objective of our investment activities is to preserve principal while maximizing the interest income we receive from our investments, without increasing risk. We invest any cash balances primarily in bank deposits and investment grade interest-bearing instruments. We are exposed to market risks resulting from changes in interest rates. We do not use derivative financial instruments to limit exposure to interest rate risk. Our interest gains may decline in the future as a result of changes in the financial markets.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q. The evaluation was conducted under the supervision and with the participation of management, including our Chief Executive Officer and Chief Financial Officer. Disclosure controls and procedures are controls and procedures designed to reasonably assure that information required to be disclosed in our reports filed under the Exchange Act, such as this Quarterly Report on Form 10-Q, is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms. Disclosure controls and procedures are also designed to reasonably assure that such information is accumulated and communicated to our management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Based on the evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of the period covered by this Quarterly Report on Form 10-Q, our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified by the Commission, and that material information relating to our company and our consolidated subsidiary is made known to management, including the Chief Executive Officer and Chief Financial Officer, particularly during the period when our periodic reports are being prepared.

Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within a company have been detected.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15f and 15d-15f under the Exchange Act) that occurred during the quarter ended June 30, 2022 that have materially affected, or that are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

We are not involved in any material legal proceedings.

Item 1A. Risk Factors

None.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosure

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed or Furnished Herewith
		Form	File Number	Exhibit	Date	
3.1	Certificate of Incorporation of the Company	8-K	001-33357	3.1	April 1, 2016	
3.2	Amendment to Certificate of Incorporation of the Company	Def 14A	001-33357	Appen. A	July 1, 2016	
3.3	Second Amendment to Certificate of Incorporation of the Company	Def 14A	001-33357	Appen. A	October 17, 2018	
3.4	Third Amendment to Certificate of Incorporation of the Company	8-K	001-33357	3.1	December 19, 2019	
3.5	Fourth Amendment to Certificate of Incorporation of the Company					X
3.6	Bylaws of the Company	8-K	001-33357	3.2	April 1, 2016	
4.1	Form of Restricted Stock Agreement/Notice	8-K	001-33357	4.1	July 18, 2012	
4.2	Description of Capital Stock	10-K	001-33357	4.7	March 12, 2020	
4.3	Form of Warrant	8-K	001-33357	4.1	March 12, 2020	
4.4†	Form of Stock Option Agreement (Executives)	10-Q	001-33357	4.8	August 10, 2020	
4.5	Form of Stock Option Agreement (Standard)	10-Q	001-33357	4.9	August 10, 2020	
4.6	Indenture, dated as of August 24, 2021, between Protalix BioTherapeutics, Inc., the guarantors party thereto, The Bank of New York Mellon Trust Company, N.A., as trustee and Wilmington Savings Fund Society, FSB, as collateral agent	8-K	001-33357	4.2	August 26, 2021	
4.7	Form of Exchange Note (2024)	8-K	001-33357	4.3	August 26, 2021	

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10.1†	Amended and Restated Pro BioTherapeutics, Inc. 2006 Stock Incentive Plan, as amended	S-8	s	4.1	July 14, 2022	
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
32.1	18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, Certification of Chief Executive Officer					X
32.2	18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, Certification of Chief Financial Officer					X
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					X
101.SCH	Inline XBRL Taxonomy Extension Schema Document					X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document					X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document					X
101.LAB	Inline XBRL Taxonomy Extension Labels Linkbase Document					X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document					X
104	COVER PAGE INTERACTIVE DATA FILE (formatted as Inline XBRL and contained in Exhibit 101).					

† Management contracts or compensation plans or arrangements in which directors or executive officers are eligible to participate.

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 thereunto duly authorized.

PROTALIX BIOTHERAPEUTICS, INC.
(Registrant)

Date: August 15, 2022

By: /s/ Dror Bashan

Dror Bashan
President and Chief Executive Officer
(Principal Executive Officer)

Date: August 15, 2022

By: /s/ Eyal Rubin

Eyal Rubin
Senior Vice President and Chief Financial Officer, Treasurer and
Secretary
(Principal Financial and Accounting Officer)

**FOURTH CERTIFICATE OF AMENDMENT TO
CERTIFICATE OF INCORPORATION OF
PROTALIX BIOTHERAPEUTICS, INC.**

(Pursuant to Section 242 of the
General Corporation Law of the State of Delaware)

Protalix BioTherapeutics, Inc., a corporation organized and existing under the laws of the State of Delaware, hereby certifies as follows:

1. The name of the corporation is Protalix BioTherapeutics, Inc. (the "Corporation"). The Certificate of Incorporation of the Corporation was filed with the Secretary of the State of Delaware on March 30, 2016, as amended by that Certificate of Amendment dated August 16, 2016, that Second Certificate of Amendment dated January 15, 2019 and that Third Certificate of Amendment dated December 16, 2019 (the "Certificate of Incorporation").

2. This Certificate of Amendment to Certificate of Incorporation of the Corporation was duly adopted by the Board of Directors of the Corporation pursuant to a resolution setting forth the proposed amendment of the Certificate of Incorporation and declaring said amendment to be advisable.

3. Article III of the Certificate of Incorporation, as amended, is hereby amended and restated in its entirety as follows:

"The Corporation is authorized to issue the following shares of capital stock: (a) 144,000,000 shares of common stock, par value \$.001 per share (the "Common Stock"); and (b) 100,000,000 shares of preferred stock, par value \$.0001 per share (the "Preferred Stock"). The voting rights, the rights of redemption and other relative rights and preferences of the Preferred Stock shall be established by the Board of Directors.

The Board of Directors may authorize the issuance of such stock to such persons upon such terms and for such consideration in cash, property or services as the Board of Directors may determine and as may be allowed by law. The just valuation of such property or services shall be fixed by the Board of Directors. All such stock when issued shall be fully paid and exempt from assessment."

4. The aforesaid amendment was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

[Remainder of this page intentionally left blank.]

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to Certificate of Incorporation to be signed by its duly authorized President and Chief Executive Officer this 26th day of July, 2022.

PROTALIX BIOTHERAPEUTICS, INC.

By: /s/ Dror Bashan

Dror Bashan

President and Chief Executive Officer

CERTIFICATION

I, Dror Bashan, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Protalix BioTherapeutics, Inc.;
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 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 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 15, 2022

/s/ Dror Bashan

Dror Bashan

President and Chief Executive Officer

CERTIFICATION

I, Eyal Rubin, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Protalix BioTherapeutics, Inc.;
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 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 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 15, 2022

/s/ Eyal Rubin

Eyal Rubin

Sr. Vice President & Chief Financial Officer,
Treasurer

PROTALIX BIOTHERAPEUTICS, INC.

CERTIFICATION

In connection with the quarterly report of Protalix BioTherapeutics, Inc. (the "Company") on Form 10-Q for the period ended June 30, 2022 as filed with the Securities and Exchange Commission (the "Report"), I, Dror Bashan, President and Chief Executive Officer of the Company, hereby certify as of the date hereof, solely for purposes of Title 18, Chapter 63, Section 1350 of the United States Code, that to the best of my knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company at the dates and for the periods indicated.

This Certification has not been, and shall not be deemed, "filed" with the Securities and Exchange Commission.

Date: August 15, 2022

/s/ Dror Bashan

Dror Bashan

President and Chief Executive Officer

PROTALIX BIOTHERAPEUTICS, INC.

CERTIFICATION

In connection with the quarterly report of Protalix BioTherapeutics, Inc. (the “Company”) on Form 10-Q for the period ended June 30, 2022 as filed with the Securities and Exchange Commission (the “Report”), I, Eyal Rubin, Senior Vice President and Chief Financial Officer of the Company, hereby certify as of the date hereof, solely for the purposes of Title 18, Chapter 63, Section 1350 of the United States Code, that to the best of my knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company at the dates and for the periods indicated.

This Certification has not been, and shall not be deemed, “filed” with the Securities and Exchange Commission.

Date: August 15, 2022

/s/ Eyal Rubin

Eyal Rubin

Senior Vice President and Chief Financial Officer
