UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-Q

(Mark One)

x **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

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from ____ to ____

Commission file number 001-40894

IsoPlexis Corporation

(Exact name of Registrant as Specified in its Charter)

Delaware	**46-2179799**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification No.)**

35 NE Industrial Road, Branford, CT 06405
(Address of principal executive offices and zip code)

(203) 208-4111
Registrant’s telephone number, including area code

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.001 per share	ISO	The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: None

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 x No o

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 x No o

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	☐	Accelerated filer	o
Non-accelerated filer	x	Smaller reporting company	x
		Emerging growth company	x

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.o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).Yes o No x

The registrant had outstanding 39,405,826 shares of common stock as of August 12, 2022.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q ("Form 10-Q") contains "forward-looking statements." These statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies and other future conditions. Such forward-looking statements may include, without limitation, statements about future opportunities for us and our products and services, our future operations, financial or operating results, anticipated business levels, future earnings, planned activities, anticipated growth, market opportunities, strategies, competitions and other expectations and targets for future periods. In some cases, you can identify forward-looking statements because they contain words such as "anticipate," "believe," "estimate," "expect," "intend," "may," "predict," "project," "target," "potential," "seek," "will," "would," "could," "should," "continue," "contemplate," "plan," and other words and terms of similar meaning.

Forward-looking statements are subject to known and unknown risks and uncertainties, many of which may be beyond our control. We caution you that forward-looking statements are not guarantees of future performance or outcomes and that actual performance and outcomes may differ materially from those made in or suggested by the forward-looking statements contained in this Form 10-Q. In addition, even if our results of operations, financial condition and cash flows, and the development of the markets in which we operate, are consistent with the forward-looking statements contained in this Form 10-Q, those results or developments may not be indicative of results or developments in subsequent periods. New factors emerge from time to time that may cause our business not to develop as we expect, and it is not possible for us to predict all of them. Factors that could cause actual results and outcomes to differ from those reflected in forward-looking statements include, among others, the following:

- estimates of our addressable market, market growth, future revenue, expenses, capital requirements and our needs for additional financing;
- the implementation of our business model and strategic plans for our products and technologies;
- competitive companies and technologies and our industry;
- our ability to manage and grow our business by expanding our sales to existing customers or introducing our products to new customers;
- our ability to develop and commercialize new products;
- our ability to establish and maintain intellectual property protection for our products or avoid or defend claims of infringement;
- the performance of third party suppliers;
- our ability to hire and retain key personnel and to manage our future growth effectively;
- our ability to obtain additional financing in future offerings;
- the volatility of the trading price of our common stock;
- the potential effects of government regulation;
- the impact of COVID-19 on our business; and
- our expectations about market trends.

For a further discussion of these and other factors that could impact our future results, performance or transactions, see Part I, Item 1A "Risk Factors" of our Annual Report on Form 10-K for the year ended December 31, 2021 and our other subsequent filings with the Securities and Exchange Commission (the "SEC"). Given these uncertainties, you should not place undue reliance on these forward-looking statements.

You should read this Form 10-Q and the documents that we reference within it completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this Form 10-Q by these cautionary statements. Except as required by law, we undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

Unless the context otherwise requires, we use the terms “IsoPlexis,” the “Company,” “we,” “us” and “our” in this Form 10-Q to refer to IsoPlexis Corporation and our consolidated subsidiaries.

Channels for Disclosure of Information

Investors and others should note that we may announce material information to the public through filings with the SEC, our website (www.isoplexis.com), press releases, public conference calls, public webcasts and our social media accounts (including https://www.linkedin.com/company/isoplexis-inc-/). We use these channels to communicate with our customers and the public about the Company, our products, our services and other matters. We encourage our investors, the media and others to review the information disclosed through such channels as such information could be deemed to be material information. The information on such channels, including on our website and our social media accounts, is not incorporated by reference in this Form 10-Q and shall not be deemed to be incorporated by reference into any other filing under the Securities Act (as defined below) or the Exchange Act (as defined below), except as expressly set forth by specific reference in such a filing. Please note that this list of disclosure channels may be updated from time to time.

Part I - Financial Information

Item 1. Financial Statements

CONDENSED CONSOLIDATED BALANCE SHEETS
(UNAUDITED)

(in thousands, except share amounts)	June 30, 2022	December 31, 2021
Assets		
Current assets:		
Cash	$ 71,608	$ 126,566
Accounts receivable, net	3,484	4,100
Inventories, net	38,988	24,299
Prepaid expenses and other current assets	2,139	3,478
Total current assets	116,219	158,443
Property and equipment, net	10,174	5,778
Intangible assets, net	20,478	21,008
Operating lease right-of-use assets	5,654	—
Other assets	441	2,243
Total assets	$ 152,966	$ 187,472
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 4,246	$ 4,839
Accrued expenses and other current liabilities	6,172	7,827
Deferred revenue	972	915
Total current liabilities	11,390	13,581
Long-term operating lease obligations	5,104	—
Long-term debt	45,897	31,646
Total liabilities:	62,391	45,227
Commitments and contingencies (Notes 10 and 12)		
Stockholders' equity:		
Preferred stock, $0.001 par value, 20,000,000 shares authorized, zero shares issued and outstanding as of June 30, 2022 and December 31, 2021	—	—
Common stock, $0.001 par value, 400,000,000 shares authorized; 39,378,424 and 39,036,010 shares issued and outstanding as of June 30, 2022 and December 31, 2021, respectively	39	39
Additional paid-in capital	278,840	276,179
Accumulated deficit	(188,304)	(133,973)
Total stockholders' equity	90,575	142,245
Total liabilities and stockholders' equity	$ 152,966	$ 187,472

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

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(UNAUDITED)

(in thousands, except share and per share amounts)	Three months ended June 30, 2022	Three months ended June 30, 2021	Six months ended June 30, 2022	Six months ended June 30, 2021
Revenue				
Product revenue	$ 3,323	$ 4,089	$ 7,777	$ 7,016
Service revenue	682	200	1,139	507
Total revenue	4,005	4,289	8,916	7,523
Cost of product revenue	1,813	2,001	4,142	3,551
Cost of service revenue	116	4	142	28
Gross profit	2,076	2,284	4,632	3,944
Operating expenses:				
Research and development expenses	7,056	5,495	14,190	9,169
General and administrative expenses	8,447	5,186	19,923	9,564
Sales and marketing expenses	7,246	9,957	19,289	17,031
Restructuring expenses	3,699	—	3,699	—
Total operating expenses	26,448	20,638	57,101	35,764
Loss from operations	(24,372)	(18,354)	(52,469)	(31,820)
Other income (expense):				
Interest expense, net	(1,210)	(870)	(2,196)	(1,613)
Other income (expense), net	(24)	(1,330)	334	(2,680)
Net loss	$ (25,606)	$ (20,554)	$ (54,331)	$ (36,113)
Accrued dividends on preferred stock	—	(3,335)	—	(6,611)
Net loss attributable to common stockholders	(25,606)	(23,889)	(54,331)	(42,724)
Basic and diluted net loss per common share	$ (0.65)	$ (11.10)	$ (1.39)	$ (19.92)
Weighted-average common shares outstanding—basic and diluted	39,117,157	2,152,083	39,077,369	2,144,856

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

CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT) (UNAUDITED)

(in thousands, except share amounts)	Series A Preferred		Series A-2 Preferred		Series B Preferred		Series B-2 Preferred		Series C Preferred		Series C-2 Preferred		Series D Preferred		Common Stock		Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Balance at January 1, 2022	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	39,036,010	$ 39	$ 276,179	$ (133,973)	$ 142,245
Exercise of common stock options	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,109	—	2	—	2
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	877	—	877
Warrant modification expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	300	—	300
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(28,725)	(28,725)
Balance at March 31, 2022	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	39,043,119	$ 39	$ 277,358	$ (162,698)	$ 114,699
Exercise of common stock options	—	—	—	—	—	—	—	—	—	—	—	—	—	—	273,002	—	87	—	87
Restricted stock awards released	—	—	—	—	—	—	—	—	—	—	—	—	—	—	62,303	—	—	—	—
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,395	—	1,395
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(25,606)	(25,606)
Balance at June 30, 2022	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	39,378,424	$ 39	$ 278,840	$ (188,304)	$ 90,575

(in thousands, except share amounts)	Series A Preferred		Series A-2 Preferred		Series B Preferred		Series B-2 Preferred		Series C Preferred		Series C-2 Preferred		Series D Preferred		Common Stock		Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Balance at January 1, 2021	253,862	$ 1,596	290,002	$ 3,623	376,061	$ 6,606	237,183	$ 6,991	564,287	$ 24,839	515,218	$ 24,929	975,039	74,876	2,133,904	$ 2	$ 1,151	$ (52,404)	$ (51,251)
Issuance of Preferred Stock	—	—	—	—	—	—	—	—	—	—	—	—	130,006	10,000	—	—	—	—	—
Exercise of common stock options	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10,912	—	5	—	5
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	95	—	95
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(15,559)	(15,559)
Balance at March 31, 2021	253,862	$ 1,596	290,002	$ 3,623	376,061	$ 6,606	237,183	$ 6,991	564,287	$ 24,839	515,218	$ 24,929	1,105,045	$ 84,876	2,144,816	$ 2	$ 1,251	$ (67,963)	$ (66,710)
Issuance of Preferred Stock	—	—	3,178	247	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exercise of common stock options	—	—	—	—	—	—	—	—	—	—	—	—	—	—	68,016	—	4	—	4
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	234	—	234
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(20,554)	(20,554)
Balance at June 30, 2021	253,862	$ 1,596	293,180	$ 3,870	376,061	$ 6,606	237,183	$ 6,991	564,287	$ 24,839	515,218	$ 24,929	1,105,045	$ 84,876	2,212,832	$ 2	$ 1,489	$ (88,517)	$ (87,026)

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

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)

	Six months ended June 30,	
(in thousands)	**2022**	**2021**
Cash flows from operating activities		
Net loss	$ (54,331)	$ (36,113)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,913	764
Provision for warranty costs	300	150
Change in fair value of warrants and loan commitment	—	4,007
Amortization of debt discount	745	301
Amortization of right-of-use assets	648	—
Share-based compensation	2,272	329
Provision for excess and obsolete inventories	61	40
Changes in operating assets and liabilities:		
Accounts receivable	616	(1,438)
Inventories	(14,750)	(8,970)
Prepaid expenses and other current assets	1,339	(529)
Other assets	608	36
Accounts payable	(593)	4,886
Accrued liabilities	(2,477)	2,334
Deferred revenue	57	342
Operating lease obligations	(676)	—
Net cash used in operating activities	(64,268)	(33,861)
Cash flows from investing activities		
Purchases of property and equipment	(5,524)	(1,961)
Payments for patents acquired and capitalized	(255)	(20,149)
Net cash used in investing activities	(5,779)	(22,110)
Cash flows from financing activities		
Proceeds from issuance of Preferred Stock - Series A-2	—	40
Proceeds from issuance of Preferred Stock - Series D	—	10,000
Proceeds received from borrowings on credit agreement	15,000	10,000
Payment of deferred offering costs	—	(1,798)
Exercise of common stock options	89	9
Net cash provided by financing activities	15,089	18,251
Net change in cash	(54,958)	(37,720)
Cash beginning	126,566	106,641
Cash ending	$ 71,608	$ 68,921
Non-cash investing and financing activities		
Transfer of Tranche B loan commitment to contra-debt upon additional borrowing under credit agreement	$ —	$ 841
Transfer of Tranche C loan commitment to contra-debt upon additional borrowing under credit agreement	$ 497	$ —
Transfer of Tranche D loan commitment to contra debt upon additional borrowing under credit agreement	$ 822	$ —
Increase in right-of-use asset	$ 642	$ —
Increase in operating lease liability obligations	$ 642	$ —
Supplemental disclosure of cash flow information		
Cash paid for interest	$ 2,200	1,546

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

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

Note 1 - Nature of operations

IsoPlexis Corporation (together with its subsidiaries, the “Company”) was incorporated in the State of Delaware in March 2013. The Company is a life sciences company building solutions to accelerate the development of curative medicines and personalized therapeutics. The Company’s award-winning single-cell proteomics systems reveal unique biological activity in small subsets of cells, allowing researchers to connect more directly to in-vivo biology and develop more precise and personalized therapies. The Company’s products have been adopted by researchers around the world, including each of the top 15 global pharmaceutical companies by revenue and by approximately 75% of the comprehensive cancer centers in the United States. On December 28, 2018, the Company created IsoPlexis UK Limited (“IsoPlexis UK”), which has remained dormant. IsoPlexis (Shanghai) Trading Co., Ltd. was created on October 9, 2021.

COVID - 19

The COVID-19 pandemic developed rapidly in 2021 and 2022, with a significant number of cases. Measures taken by various governments to contain the virus have affected economic activity. The Company has taken a number of measures to monitor and mitigate the effects of COVID-19, such as safety and health measures for the Company’s employees (such as social distancing and working from home) and securing the supply of materials that are essential to the production process.

At this stage, the impact on the Company’s business and results has not been significant and based on the Company’s experience to date management expects this to remain the case. The Company will continue to follow the various government policies and advice.

Liquidity and ability to continue as a going concern

During the six months ended June 30, 2022 and 2021, the Company incurred a net loss of $54.3 million and $36.1 million, respectively, and used $64.3 million and $33.9 million in cash for operations, respectively. In addition, as of June 30, 2022, the Company had an accumulated deficit of $188.3 million. The Company expects to continue to generate operating losses and negative cash flows for the foreseeable future.

In addition, the Company’s Credit Agreement and Guaranty, dated as of December 30, 2020 (as amended, the “Credit Agreement”), between the Company and Perceptive Credit Holdings III, LP, as administrative agent and as a lender, includes a quarterly minimum total revenue covenant for the applicable trailing twelve month period through December 31, 2025. Although the Company remains in compliance with its covenants as of June 30, 2022, based on our current projections, the Company does not expect to meet certain of its financial covenants within one year following the date that these financial statements are issued. Therefore, the Company may be required to repay its outstanding debt within the next 12 months, the principal balance of which was $50.0 million as of June 30, 2022. We are currently working with the lenders to lower the existing revenue covenants in the Credit Agreement, although there can be no assurance that such revisions will be implemented on a timely basis or at all.

Accordingly, the foregoing conditions, taken together, raise substantial doubt about the Company’s ability to continue as a going concern for at least a period of one year from the issuance of these unaudited consolidated interim financial statements.

The Company may seek additional funding in order to reach its business objectives. The Company may seek these funds either through public debt or equity offerings or further private equity financings, debt financings, and strategic alliances. The Company may not be able to obtain funding on acceptable terms, or at all, and the terms of any funding may adversely affect the holdings or the rights of the Company’s stockholders. If the Company is unable to obtain additional funding, it could adversely affect the Company’s business prospects.

The accompanying condensed consolidated financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and settlement of liabilities and commitments in the normal course of business. The condensed consolidated financial statements do not reflect any adjustments relating to the recoverability and classification of assets or the amounts and classification of liabilities that might be necessary if the Company is unable to continue as a going concern.

Note 2 - Summary of significant accounting policies

Basis of presentation

The accompanying condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted ("GAAP") in the United States. The condensed consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries, IsoPlexis UK and Isoplexis (Shanghai) Trading Co., Ltd. All intercompany transactions have been eliminated.

Any reference in these notes to applicable guidance is meant to refer to GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASU") promulgated by the Financial Accounting Standards Board ("FASB").

The condensed consolidated financial statements of the Company included herein have been prepared, without audit, pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"). Certain information and footnote disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted from these condensed consolidated financial statements, as is permitted by such rules and regulations. Accordingly, these condensed consolidated financial statements should be read in conjunction with the consolidated financial statements as of and for the year ended December 31, 2021 and the notes thereto. The results for interim periods are not necessarily indicative of results to be expected for the full year or any other interim period.
In the opinion of management, the information furnished reflects all adjustments, all of which are of a normal and recurring nature, necessary for a fair presentation of the results for the reported interim periods. The Company considers events or transactions that occur after the balance sheet date but before the financial statements are issued to provide additional evidence relative to certain estimates or to identify matters that require additional disclosure. The results of operations for interim periods are not necessarily indicative of results to be expected for the full year or any other interim period.

Significant Accounting Policies

With the exception of the following policy, the Company's significant accounting policies are unchanged from those disclosed in Note 2, "Summary of significant accounting policies" in our consolidated financial statements as of and for the year ended December 31, 2021.

Recently adopted accounting pronouncements

The Company adopted ASU No. 2016-02 as of January 1, 2022, using a modified retrospective transition approach and elected the optional transition method to apply the provision of ASC 842 as of the effective date, rather than the earliest period presented. The Company elected the "package of practical expedients", which permits it to not reassess under the new standard the Company's prior conclusions about lease identification, lease classification and initial direct costs. The Company made an accounting policy election to exempt short-term leases of 12 months or less from balance sheet recognition requirements associated with the new standard. Leases with an initial term of twelve months or less, or on a month-to-month basis, are not recorded on the balance sheet and are recognized on a straight-line basis over the lease term. The Company also elected the practical expedient for use-of-hindsight to conclude on lease term. If applicable, the Company combines lease and non-lease components, which primarily relate to ancillary expenses associated with real estate leases such as common area maintenance charges and management fees.

The Company determines if an arrangement is a lease at inception and determines the classification of the lease, as either operating or finance, at commencement. Operating leases are included in operating lease right-of-use ("ROU") assets, accrued expenses and other current liabilities and long-term operating lease obligations on our consolidated balance sheets. The Company presently does not have any finance leases.

ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at the commencement date of the lease based on the present value of lease payments over the lease term. The Company's leases do not provide a readily determinable implicit discount rate. The Company's borrowing rate is estimated to approximate the interest rate on a collateralized basis with similar terms and payments, and in similar economic environments. Operating lease ROU assets also factor in any lease payments made, initial direct costs and lease incentives received. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that it will exercise that option. Some of the Company's leases include options to extend the lease term. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

The adoption of this accounting standard resulted in recording operating lease ROU assets for six real estate and three equipment operating lease arrangements and corresponding operating lease liabilities of $5.7 million and $5.9 million, respectively, as of January 1, 2022. The operating lease assets at adoption were lower than the operating lease liabilities because of the balance of the Company's deferred rent liabilities of $0.2 million at December 31, 2021, which was reclassified into operating lease assets. The adoption of the standard did not have a material effect on the Company's condensed consolidated statements of operations or condensed consolidated statements of cash flows.

See Note 10 for further information concerning the Company's leases.

New accounting standards not yet effective

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. This standard requires that credit losses be reported using an expected losses model rather than the incurred losses model that is currently used, and establishes additional disclosures related to credit risks. For available-for-sale debt securities with unrealized losses, this standard now requires allowances to be recorded instead of reducing the amortized cost of the investment. This standard will be effective for the Company on January 1, 2023. The Company has not yet determined the impact the adoption of this standard will have on the consolidated financial statements.

In March 2020, the FASB issued ASU No. 2020-04, Reference Rate Reform (Topic 848) ("ASU 2020-04"), which provides companies with temporary optional financial reporting alternatives to ease the potential burden in accounting for reference rate reform and includes a provision that allows companies to account for a modified contract as a continuation of an existing contract. ASU 2020-04 is effective for all entities as of March 12, 2020 through December 31, 2022. The Company has certain debt instruments for which the interest rates are indexed to LIBOR, and as a result, is currently evaluating the effect that the implementation of this standard will have on the Company's consolidated operating results, cash flows, financial condition and related disclosures.

Note 3 - Fair Value Measurement

Certain of the Company's assets and liabilities are recorded at fair value, as described below.

The following tables set forth the Company's financial instruments that were measured at fair value on recurring basis by level within the fair value hierarchy:

	June 30, 2022			
(in thousands)	**Level 1**	**Level 2**	**Level 3**	**Total**
Loan commitment	$ —	$ —	$ —	$ —

	December 31, 2021			
(in thousands)	**Level 1**	**Level 2**	**Level 3**	**Total**
Loan commitment	$ —	$ —	$ 1,169	$ 1,169

During the periods presented, the Company has not changed the manner in which it values assets and liabilities that are measured at fair value. The Company recognizes transfers between levels of the fair value hierarchy as of the end of the reporting period. There were no transfers within the hierarchy during the six months ended June 30, 2022 and 2021.

The commitment for an additional tranche under the Credit Agreement (see Note 7) qualified as a freestanding financial instrument required to be recorded at estimated fair value. The fair value of the loan commitment was estimated based on the present value of future expected cash flows discounted at the Company's effective interest rate of 14.09% and 14.12% at June 30, 2022 and December 31, 2021, respectively.

The following table presents changes during the six months ended June 30, 2022 and 2021 in Level 3 liabilities measured at fair value on a recurring basis:

(in thousands)	Loan Commitment	Series D Warrants	Series A Warrants
Balance at January 1, 2022	$ 1,169	$ —	$ —
Exercise of Tranche C loan commitment	(497)	—	—
Change in warrant exercise price	150	—	—
Balance at March 31, 2022	822	—	—
Exercise of Tranche D loan commitment	(822)	—	—
Balance at June 30, 2022	—	—	—

(in thousands)	Loan Commitment	Series D Warrants	Series A Warrants
Balance as January 1, 2021	$ 2,240	$ 4,430	$ 207
Change in estimated fair value	(139)	1,807	—
Balance at March 31, 2021	2,101	6,237	207
Change in estimated fair value	—	2,061	—
Exercise of warrant	—	—	(207)
Exercise of Tranche B loan commitment	(841)	—	—
Balance at June 30, 2021	1,260	8,298	—

Under ASC Topic 480, Distinguishing Liabilities from Equity, the warrants (see Note 7) were freestanding financial instruments that qualified as liabilities required to be recorded at their estimated fair value at the inception date and remeasured at each reported balance sheet date thereafter until settlement. The Series A-2 Preferred Stock Warrant was exercised on May 11, 2021, at an exercise price of $12.58606 per share for 3,178 shares of Series A-2 redeemable convertible preferred stock. Upon closing of the Company's initial public offering ("IPO") on October 12, 2021, the warrant held by Perceptive Credit Holdings III, LP to purchase Series D redeemable convertible preferred stock was converted into a warrant exercisable for a total of 811,374 shares of common stock. This common stock warrant is no longer considered "potentially redeemable" and the outstanding balance of the warrant liability has been reclassified into equity in accordance with ASC 480 for the year ended December 31, 2021.

On March 30, 2022, the Company entered into a Third Amendment to Credit Agreement and Guaranty with Perceptive Credit Holdings III, LP pursuant to which the prior $15.0 million Tranche C term loan, which was available through March 31, 2022 subject to several conditions, was changed to $7.5 million and such amount was borrowed on March 30, 2022. In addition, the Third Amendment added a new $7.5 million Tranche D term loan, which was drawn upon on June 29, 2022. In connection with entering into the above-referenced Third Amendment to the Credit Agreement, on March 30, 2022, the Company amended the warrant that had been previously issued to Perceptive Credit Holdings III, LP to purchase up to 811,374 shares of common stock at an exercise price of $9.62 per share. The warrant exercise price was amended to $6.00 per share. The change in exercise price resulted in an increase to debt issuance costs of $0.3 million, half of which was recognized with the Tranche C term loan draw as shown in the table above. The other half was recognized on June 29, 2022, when Tranche D was drawn upon.

The above fair value measurements are sensitive to changes in underlying unobservable inputs. A change in those inputs could result in a significantly higher or lower fair value measurement.

Changes in fair value of the warrants and loan commitment is included in other expense in the statements of operations.

Note 4 - Revenue

The Company's revenue is generated primarily from the sale of products and services. Product revenue primarily consists of sales of instruments and consumables used in single cell research equipment. Service and other revenue primarily consists of revenue generated from measuring immune responses using the Company's technology.

Revenue by source

(in thousands)	Three months ended June 30, 2022	Three months ended June 30, 2021	Six Months Ended June 30, 2022	Six Months Ended June 30, 2021
Instruments	$ 2,066	$ 2,849	$ 5,101	$ 4,968
Consumables	1,257	1,239	2,676	2,048
Extended service warranty	276	146	502	297
Other service revenue	406	55	637	210
Total revenue	$ 4,005	$ 4,289	$ 8,916	$ 7,523

Revenue by geographic area

Based on region of destination (in thousands)	Three months ended June 30, 2022	Three months ended June 30, 2021	Six Months Ended June 30, 2022	Six Months Ended June 30, 2021
Americas (1)	$ 3,069	$ 3,386	$ 6,428	$ 5,621
Europe (2)	279	174	646	739
Greater China (3)	542	286	1,509	512
Asia-Pacific (4)	115	443	333	651
Total revenue	$ 4,005	$ 4,289	$ 8,916	$ 7,523

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(1) Region includes revenue from the United States of America and Canada
(2) Region includes revenue from the United Kingdom, Belgium, Czech Republic, Portugal, France, Spain, Germany, Sweden, Italy, Israel and Switzerland
(3) Region includes revenue from China and Taiwan
(4) Region includes revenue from Singapore, Japan, Australia and South Korea

Performance obligations

The Company regularly enters into contracts with multiple performance obligations. Most performance obligations are generally satisfied within a short time after the contract execution date. As of June 30, 2022, the aggregate amount of the transaction price allocated to remaining performance obligations was $0.7 million, of which substantially all is expected to be recognized as revenue during 2022.

Contract balances

Contract balances represent amounts presented in the consolidated balance sheets when either the Company has transferred goods or services to the customer, or the customer has paid consideration to the Company under the contract. These contract balances included accounts receivable (see Note 5) and deferred revenue. Accounts receivable balances represent amounts billed to customers for goods and services when the Company has an unconditional right to payment of the amount billed. Deferred revenue, as of June 30, 2022 and December 31, 2021 was $1.0 million and $0.9 million, respectively. Deferred revenue represents cash consideration received from customers for which all services or products have not yet been transferred. Revenue recorded during the six months ended June 30, 2022 included $0.2 million of previously deferred revenue that was included in contract liabilities as of December 31, 2021.

As of June 30, 2022 and December 31, 2021, no single customer represented 10% or more of accounts receivable. For the three months ended June 30, 2022 and June 30, 2021, no single customer represented 10% or more of revenue.

Note 5 - Supplemental Balance Sheet Details

Accounts receivable, net consists of the following:

(in thousands)	June 30, 2022	December 31, 2021
Accounts receivable	$ 3,530	$ 4,146
Allowance for doubtful accounts	(46)	(46)
Total accounts receivable net of allowance	$ 3,484	$ 4,100

Inventories, net consists of the following:

(in thousands)	June 30, 2022	December 31, 2021
Raw materials	$ 36,254	$ 22,179
Work in process	628	—
Finished goods	2,414	2,481
Reserve for excess and obsolete inventory	(308)	(361)
Total inventories, net	$ 38,988	$ 24,299

Property and equipment, net consist of the following:

(in thousands)	June 30, 2022	December 31, 2021
Furniture and equipment	$ 9,622	$ 5,585
Computers and technology	3,155	2,139
Leasehold improvements	1,544	1,073
Total	14,321	8,797
Accumulated depreciation	(4,147)	(3,019)
Property and equipment, net	$ 10,174	$ 5,778

Depreciation expense was $1.1 million and $0.5 million for the six months ended June 30, 2022 and 2021, respectively.

Accrued expenses and other current liabilities consist of the following:

(in thousands)	June 30, 2022	December 31, 2021
Accrued compensation	$ 2,043	$ 3,656
Accrued operating expenses	2,647	3,556
Short-term operating lease liability	812	—
Other, including warranties	670	615
Total accrued liabilities	$ 6,172	$ 7,827

On April 11, 2022, the Company completed a re-organization of the Commercial team and company-wide RIF (Reduction in Force). This action resulted in non-recurring restructuring expenses of $3.7 million which were primarily associated with severance, benefits, and outplacement services. Restructuring liability is included within other current liabilities on the consolidated balance sheets. The following table summarizes the restructuring liability accrual activity during the six months ended June 30, 2022:

(in thousands)	Costs Incurred for the Six Months Ended June 30, 2022	Payments Made During the Six Months Ended June 30, 2022	Liability as of June 30, 2022
Severance related	$3,019	$2,954	$65
Outplacement services	259	213	46
Stock-based compensation expense	176	176	—
Consultant fees	138	138	—
Other	108	108	—
Total	$ 3,700	$ 3,589	$ 111

Note 6 - Intangible assets

Intangible assets consist of the following:

		June 30, 2022		
(in thousands)	Remaining Useful Life (Years)	Gross	Accumulated Amortization	Net
Patents	9 - 14	$ 21,862	$ 1,700	$ 20,162
Capitalized licenses	1 - 4	670	354	316
Total intangible assets		$ 22,532	$ 2,054	$ 20,478

		December 31, 2021		
(in thousands)	Remaining Useful Life (Years)	Gross	Accumulated Amortization	Net
Patents	9 - 14	$ 21,607	$ 981	$ 20,626
Capitalized licenses	1 - 4	670	288	382
Total intangible assets		$ 22,277	$ 1,269	$ 21,008

During the six months ended June 30, 2022, there were $0.2 million of additions to patents with a weighted average useful life of 13.1 years.

Amortization expense was $0.8 million and $0.2 million for the six months ended June 30, 2022 and 2021, respectively. The amortization of intangible assets attributable to product sales is recognized in cost of product and service revenue. The amortization of intangible assets not attributable to product sales is recognized in general and administrative operating expenses.

As of June 30, 2022, the estimated annual amortization of intangible assets for the remainder of 2022 and the next four years is shown in the following table. Actual amortization expense to be reported in future periods could differ from these estimates as a result of acquisitions, divestitures, and asset impairments, among other factors.

Year (in thousands)	Estimated Annual Amortization
2022 (remaining six months)	$ 849
2023	1,698
2024	1,698
2025	1,615
2026	1,587

Note 7 - Debt

On December 30, 2020, the Company closed on a $50.0 million Credit Agreement with a significant equity investor, of which the Company borrowed $25.0 million immediately upon closing. In May 2021, the Company borrowed an additional $10.0 million. On March 30, 2022, the Company entered into a Third Amendment to Credit Agreement and Guaranty with Perceptive Credit Holdings III, LP pursuant to which the prior remaining $15.0 million Tranche C term loan was changed to $7.5 million and such amount was borrowed on March 30, 2022. In addition, the Third Amendment added a new $7.5 million Tranche D term loan, which was drawn on June 29, 2022 subject to several conditions, including compliance with the covenant showing total revenue of at least $16.8 million for the twelve-month period ended March 31, 2022.

Borrowings under the Credit Agreement bear interest at the one-month LIBOR, with a 1.75% floor, plus a 9.50% margin (11.25% at June 30, 2022). Monthly payments of interest-only are due over the term of the loan with no scheduled loan amortization. Amounts borrowed are due and payable on the maturity date, December 30, 2025. The loan is secured by substantially all of the Company's assets. Financial covenants include a $3.0 million minimum cash balance at all times and trailing twelve-month minimum revenue amounts measured on a quarterly basis. On October 29, 2021, the Company entered into the Second Amendment to, among other things, eliminate the minimum total revenue covenant for the twelve months ending December 31, 2021 and reset the minimum total revenue covenants thereafter. Pursuant to the Second Amendment, the minimum total revenue covenant, as amended, has resumed testing for the twelve months ended June 30, 2022. As of June 30, 2022, the Company was in compliance with the minimum total revenue covenant requirement of $18.3 million and minimum cash balance covenant requirement of $3.0 million.

The total minimum revenue covenant requirements for the next twelve months are as follows:

Twelve-Month Period Ending	Minimum Total Revenue (in thousands)	
September 30, 2022	$	21,722
December 31, 2022		26,545
March 31, 2023		30,179
June 30, 2023		35,221

In connection with the Credit Agreement closing, the Company issued to the lender warrants to purchase 97,504 shares of Series D preferred stock. The warrants have a 10-year contractual life and had an exercise price of $76.92 per warrant share. The fair value at issuance was estimated at $4.4 million and was recorded as a warrant liability. Upon closing of the IPO on October 12, 2021, the Series D redeemable convertible preferred stock warrant was converted into a warrant exercisable for a total of 811,374 shares of common stock with an exercise price of $9.62 per warrant share. In connection with the Third Amendment to the Credit Agreement dated March 30, 2022, warrants were reissued and the exercise price was changed from $9.62 per warrant share to $6.00 per warrant share. The change in exercise price resulted in an increase to debt issuance costs of $0.3 million, half of which was recognized with the Tranche C term loan which was drawn on March 30, 2022. This common stock warrant is no longer considered “potentially redeemable” and the fair value of the warrant liability as of October 12, 2021 has been reclassified into equity in accordance with ASC 480 for the year ended December 31, 2021 (see Note 3).

In addition, given that the Credit Agreement contained additional tranches of potential borrowings at inception, the Company identified and recorded within other assets on the balance sheet a $2.2 million asset related to future loan commitments at December 30, 2020. During 2021, $0.8 million was reclassified as a reduction in the carrying value of the $10.0 million tranche drawn in May 2021 on a pro-rata basis, and will be amortized over the remaining term of the debt. In connection with the Tranche C draw on March 30, 2022, $0.5 million was reclassified as a reduction in the carrying value of the $7.5 million tranche and will be amortized over the remaining term of the debt. As of June 30, 2022, the loan was fully drawn and the asset related to the future loan commitment was reduced to zero. The Company determined that the loan commitment meets the definition within ASC 480 as a freestanding financial instrument to be recorded at fair value given that it is both (1) legally detachable per the explicit ability provided to the creditor allowing it to assign all or part of its interest under the Credit Agreement to any person or entity; and (2) separately exercisable given that it can be exercised or not exercised at the Company’s option without impacting the outstanding balance of the original $25.0 million borrowed upon execution of the Credit Agreement. The remaining proceeds were allocated to the value of the initial debt borrowed and the discount resulting on such debt is being amortized over the term of the Credit Agreement.

On December 31, 2021, the process of cessation of LIBOR as a reference rate took effect. After December 31, 2021, new borrowings will no longer use LIBOR as a reference rate. Instead, these borrowings will be subject to an interest rate based on either the Secured Overnight Financing Rate (“SOFR”), which is deemed a replacement benchmark for LIBOR under the Credit Agreement, or an alternate index to be agreed upon; provided that if such alternate rate of interest shall be less than 1.75%, such rate shall be deemed to be 1.75% for the purposes of the Credit Agreement. Between December 31, 2021 and June 30, 2023, any legacy borrowings may continue to use LIBOR as the basis for interest rates. After June 30, 2023, all borrowings will be based on SOFR or the alternate index.

Note 8 - Equity

Common stock

As of June 30, 2022, the Company had authorized 400,000,000 shares of Common Stock, of which a total of 39,378,424 and 39,036,010 shares were outstanding, as of June 30, 2022 and December 31, 2021, respectively.

Preferred stock

Upon closing of the IPO on October 12, 2021, all 3,344,836 shares of Preferred Stock that were outstanding immediately prior to the closing of the IPO automatically converted into 26,758,688 shares of Common Stock. In addition, the Company issued 1,643,374 shares of Common Stock to the holders of the outstanding Preferred Stock in respect of accrued dividends thereon accrued to but not including October 12, 2021, based on the IPO price of $15.00 per share.

Under the Amended and Restated Certificate of Incorporation filed upon the Company's IPO, the Company authorized 20,000,000 shares of non-redeemable preferred stock, $0.001 par value per share ("Preferred Stock"), of which no shares were outstanding at June 30, 2022 and December 31, 2021.

Note 9 - Equity based compensation

The Company's 2014 Stock Plan (the "Plan") provides for the granting of stock options or restricted stock to key employees, officers, directors and consultants. Upon effectiveness of the 2021 Plan (as defined below), no further issuances were made under the 2014 Plan.

The Company's 2021 Omnibus Incentive Compensation Plan (the "2021 Plan") was adopted by its board of directors and stockholders and became effective on October 7, 2021. Following the IPO, all equity-based awards are granted under the 2021 Plan. The 2021 Plan provides for the grant of both non-statutory and incentive stock options, stock appreciation rights, restricted stock awards, restricted stock units, deferred share units, cash incentive awards and other equity-based or equity-related awards to the Company's employees, officers, directors and consultants. The terms of equity awards granted under the 2021 Plan to date are consistent with those granted under the 2014 Plan, as described below. The maximum number of shares outstanding under the 2021 Plan is 5,223,601, plus the number of shares of the Company's common stock underlying awards under the 2014 Plan, not to exceed 5,113,324 shares, that become available again for grant under the 2014 Plan in accordance with its terms.

Stock options

Stock options expire 10 years from the date of grant. The stock options generally vest 25% upon the one-year anniversary of the service inception date and then ratably each month over the remaining 36 months. Upon termination of service, any unvested stock options are automatically returned to the Company. Vested stock options that are not exercised within the specified period, according to the terms and conditions of the option plan, following the termination as an employee, consultant, or service provider to the Company are surrendered back to the Company. Those stock options are added back to the plan pool and made available for future grants. Compensation cost is recorded on a straight-line basis over the requisite service period of the award based on the fair value of the options issued on the measurement date.

The following table summarizes stock option activity for the six months ended June 30, 2022:

	Stock Options			
	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value (In thousands)
Outstanding as of December 31, 2021	5,105,278	$ 2.62	7.7	
Granted	1,139,082	2.81		
Forfeited	(359,619)	4.04		
Exercised	(280,111)	0.62		
Outstanding as of June 30, 2022	5,604,630	$ 2.67	7.7	$ 3,771
Vested and expected to vest as of June 30, 2022	5,604,630	$ 2.67	7.7	$ 3,771
Exercisable at June 30, 2022	2,768,974	$ 1.21	6.1	$ 3,402

Options to purchase 1.1 million shares were granted during the six months ended June 30, 2022. The weighted-average grant date fair value of stock options awarded during the six months ended June 30, 2021 was approximately $2.77 per share. As of June 30, 2022, there was a total of $12.0 million of unrecognized employee compensation costs related to non-vested stock option awards expected to be recognized over a weighted average period of 3.1 years.

The Company estimates the fair value of stock-based compensation utilizing the Black-Scholes option pricing model, which is dependent upon several variables, such as expected term, volatility, risk-free interest rate, and expected dividends. Each of these inputs is subjective and generally requires significant judgment to determine.

The following table summarizes the range of key assumptions used to determine the fair value of stock options granted during:

	Six Months Ended June 30,	
	2022	2021
Risk-free interest rate	1.2 %	0.94 - 1.4%
Expected term (in years)	7	7
Expected volatility	55 %	55 %
Expected dividend yield	—	—
Exercise prices	$2.10 - $3.43	$1.83 - $4.81
Estimated fair value of common stock options	$1.16 - $1.90	$3.96 - $10.72

Restricted stock awards

Restricted stock awards are rights to receive shares of the Company's Common Stock upon meeting specified vesting requirements. The fair value of a restricted stock award is the market value as determined by the closing price of the stock on the day of grant. These awards were granted under the Company's 2021 Plan.

The following table summarizes restricted stock award activity for the six months ended June 30, 2022:

	Restricted Stock Awards	Weighted Average Grant Date Fair Value
Unvested as of December 31, 2021	507,013	$ 8.46
Granted	951,033	3.93
Vested	(62,303)	2.70
Forfeited	(456,942)	4.82
Unvested as of June 30, 2022	938,801	$ 6.02

62 thousand shares of restricted stock vested during the six months ended June 30, 2022. As of June 30, 2022, there was approximately $4.9 million of total unrecognized compensation cost related to restricted stock awards. This amount is expected to be recognized over the remaining weighted-average vesting period of 3.6 years.

Employee stock purchase plan

In the third quarter of 2021, the Company approved the 2021 Employee Stock Purchase Plan (the "ESPP"), which became effective upon completion of the IPO. As of June 30, 2022, there has not been an offering under the ESPP and no shares of Common Stock have been purchased under the ESPP.

Expense

The following table summarizes stock-based compensation expense, and also the allocation within the consolidated statements of operations:

(in thousands)	Six Months Ended June 30, 2022	Six Months Ended June 30, 2021
Research and development	$ 239	$ 56
General and administrative	1,163	197
Sales and marketing	34	76
Total stock-based compensation expense	$ 1,436	$ 329

The following table summarizes restricted stock-based compensation expense, and also the allocation within the consolidated statements of operations:

(in thousands)	Six Months Ended June 30, 2022	Six Months Ended June 30, 2021
Research and development	$ 154	$ —
General and administrative	140	—
Sales and marketing	542	—
Total restricted stock-based compensation expense	$ 836	$ —

The $0.8 million of restricted stock-based compensation expense includes $0.2 million of accelerated expenses related to restructuring cost.

Note 10 - Commitments

Operating leases

At June 30, 2022, our operating leases had remaining lease terms of up to 3.80 years, including any reasonably probable extensions.

Lease balances within our consolidated balance sheet were as follows:

(in thousands)	June 30, 2022
Assets:	
Operating lease right-of-use assets	$ 5,654
Liabilities:	
Accrued expenses and other current liabilities	$ 812
Long-term operating lease obligations	5,104
Total lease liabilities	$ 5,916
Supplemental non-cash disclosures	
Operating lease right-of-use assets obtained in exchange for lease obligations	$ 642

Operating lease expense, including variable and short-term lease costs, which were insignificant to the total operating lease cash flows and supplemental cash flow information were as follows:

(in thousands)	Six Months Ended June 30, 2022
Cost of product revenue	$ 56
Research and development expenses	190
Sales and marketing expenses	310
General and administrative expenses	276
Total operating lease expense	$ 832
Operating cash outflows from operating leases	$ 832

The weighted average remaining lease liability term and the weighted average discount rate were as follows:

	June 30, 2022
Weighted average lease liability term (in years)	3.80
Weighted average discount rate	5.00 %

The following table reconciles the undiscounted cash flows for each of the first five years and thereafter to the operating lease liabilities recognized in our consolidated balance sheet at June 30, 2022. The reconciliation excludes short-term leases that are not recorded on the balance sheet.

(in thousands)	June 30, 2022
2022 (remaining six months)	$ 880
2023	1,741
2024	1,830
2025	1,330
2026	695
Thereafter	—
Total lease payments	6,476
Less: imputed interest	(560)
Total lease liabilities	$ 5,916

We had one lease commence in December 2021 with payments beginning in February 2022.

Purchase Commitments

On May 12, 2021 the Company entered into a Supply Agreement with QIAGEN GmbH, pursuant to which they have agreed to supply certain reagents to the Company, and the Company has agreed to certain annual minimum purchases. The future minimum purchase values are as follows:

(in millions)	Year Ending December 31,
2022	$ 2.5
2023	4.0
2024	5.0
2025	7.0
2026	9.0
2027	10.0
Total	$ 37.5

Note 11 - Product warranties

The Company warrants certain products generally for periods of one year following the delivery date. Accrued warranty costs are included in accrued expenses and other current liabilities.

	Six Months Ended June 30,	
(in thousands)	2022	2021
Accrued warranty cost, beginning	$ 285	$ 135
Cost of warranty services	(300)	(75)
Estimated provision for warranty cost	300	150
Accrued warranty cost, end	$ 285	$ 210

Note 12 - Legal proceedings

The Company may be a party to litigation or subject to claims incident to the ordinary course of business. Although the results of litigation and claims cannot be predicted with certainty, the Company currently believes that the final outcome of these ordinary course matters will not have a material adverse effect on its business. Regardless of the outcome, litigation can have an adverse impact on the Company because of defense and settlement costs, diversion of management resources and other factors. The Company is not currently a party to any material legal proceedings, and the Company's management believes that there are currently no claims or actions pending against the Company, the ultimate disposition of which could have a material adverse effect on the Company's results of operations or financial condition.

Note 13 - Other income (expense), net

Other income (expense), net consisted of the following:

	Three months ended June 30,		Six Months Ended June 30,	
(in thousands)	2022	2021	2022	2021
Grant revenue	$ 24	$ 730	$ 381	$ 1,327
Change in fair value of warrants and loan commitment	—	(2,061)	—	(4,007)
Currency gain/(loss)	(31)	—	(31)	—
Net book value of asset disposed	(16)	—	(16)	—
Other income/(expense)	(1)	1	—	—
Other income (expense), net	$ (24)	$ (1,330)	$ 334	$ (2,680)

Note 14 - Net loss per share attributable to common stockholders

The Company excluded the following potential common shares, presented based on amounts outstanding at each period end, from the computation of diluted net loss per share attributable to common stockholders for the periods indicated because including them would have an anti-dilutive effect:

	June 30, 2022	June 30, 2021
Options outstanding to purchase common stock	5,604,630	4,641,192
Unvested restricted stock awards	938,801	—
Convertible preferred stock (as converted to common stock)	—	26,758,688

Note 15 - Related party transactions

The Company has license agreements with Yale University and California Institute of Technology, which are holders of Common Stock. There is an immaterial amount of receivables or payables due from or to these entities as of June 30, 2022. As described in Note 7, the Company has a Credit Agreement with Perceptive Credit Holdings III, LP, which is a holder of Common Stock.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited condensed consolidated financial statements and related notes appearing elsewhere in this Form 10-Q and our audited consolidated financial statements and the related notes thereto and the discussion under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our Form 10-K filed with the SEC on March 30, 2022 (the "2021 10-K"). Some of the information contained in this discussion and analysis or set forth elsewhere in this Form 10-Q, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the sections titled "Cautionary Note Regarding Forward-Looking Statements" and "Risk Factors" in the 2021 10-K, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Data as of and for the three and six months ended June 30, 2022 and 2021 has been derived from our unaudited condensed consolidated financial statements appearing at the beginning of this Form 10-Q. Results for any interim period should not be construed as an inference of what our results would be for any full fiscal year or future period.

Overview

IsoPlexis Corporation is a company empowering labs to leverage the cells and proteome changing the course of human health. Our systems uniquely identify a comprehensive range of multifunctional single cells, i.e. the superhero cells in the human body. These cells enable researchers to understand and predict disease progression, treatment resistance and therapeutic efficacy to advance all of human health. We are a life sciences company building solutions to accelerate the development of curative medicines and personalized therapeutics. Our award-winning single-cell proteomics systems reveal unique biological activity in small subsets of cells, allowing researchers to connect more directly to *in vivo* biology and develop more precise and personalized therapies.

We are enabling deeper access to *in vivo* biology and driving durable and potentially transformational research on disease in a new era of advanced medicine. We believe our platform is the first to employ both proteomics and single cell biology in an effort to fully characterize and link cellular function to patient outcomes by revealing treatment response and disease progression. Our single cell proteomics platform, which includes instruments, chip consumables and software, provides an end-to-end solution to reveal a more complete view of protein function at an individual cellular level. Since our commercial launch in June 2018, our platform has been adopted by the top 15 global biopharmaceutical companies by revenue and approximately three quarters of the comprehensive cancer centers in the United States to help develop more durable therapeutics, overcome therapeutic resistance, and predict patient responses for advanced immunotherapies, cell therapies, gene therapies, vaccines, and regenerative medicines. Our initial focus has been on developing applications of our platform for cancer immunology and cell and gene therapy. We are now expanding our capabilities to include applications for infectious diseases, inflammatory conditions, and neurological diseases.

We currently market and sell our technology with an in-house commercial team in the United States, China and Europe. We are also utilizing our distribution network to market and sell across multiple countries, including Australia, Belgium, Canada, China, Czech Republic, France, Germany, Italy, Israel, Japan, Portugal, Singapore, South Korea, Spain, Switzerland, and the United Kingdom. We intend to further expand our international presence by growing our distribution networks in Brazil, India, Mexico and beyond.

We manufacture our instruments and chip consumables in our manufacturing facilities in Branford, Connecticut and do not outsource any of our production manufacturing to third party contract manufacturers. Certain of our suppliers of components and materials are single source suppliers and we do not have supply agreements with certain suppliers of these critical components and materials beyond purchase orders. As part of our overall risk management strategy, we continue to evaluate and identify alternative suppliers for each of our components and materials.

Since our inception in March 2013, we have devoted substantially all of our resources to organizing and staffing our company, business planning, raising capital, conducting research and development activities, and filing patent applications. Prior to the completion of our IPO, we financed our operations primarily through the private placement of our securities, the incurrence of indebtedness and, to a lesser extent, grant income and revenue derived from sales of our instruments and chip consumables. As of June 30, 2022, our principal source of liquidity was cash, which totaled $71.6 million.

We completed our first sale of our systems in June 2018 and have generally experienced significant revenue growth in recent periods. Revenue was $4.0 million and $8.9 million for the three and six months ended June 30, 2022, as compared to $4.3 million and $7.5 million for the three and six months ended June 30, 2021. Nevertheless, we have incurred recurring losses since inception. For the three and six months ended June 30, 2022, our net losses were $25.6 million and $54.3 million as compared to $20.6 million and $36.1 million for the three and six months ended June 30, 2021. As of June 30, 2022, we had an accumulated deficit of $188.3 million. We expect to continue to incur significant expenses and operating losses for the foreseeable future in connection with ongoing development and business expansion activities, particularly as we continue to:

- expand our research and development activities;
- obtain, maintain and expand and protect our intellectual property portfolio;
- market and sell new and existing products and services; and
- attract, hire and maintain qualified personnel to support our expanding business efforts.

Furthermore, we will incur additional costs associated with operating as a public company, including significant legal, accounting, compliance, investor relations and other expenses that we did not incur as a private company.

As a result of these anticipated expenditures, we will need substantial additional financing to support our continuing operations and pursue our growth strategy. Until such time as we can generate positive cash flows from operations, if ever, we expect to finance our operations through a combination of equity offerings, debt financings, sales of products and services to our customers and, to a lesser extent, grant income. We may be unable to raise additional funds when needed on favorable terms or at all. Our inability to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy. We will need to generate significant revenue to achieve profitability, and we may never do so.

Key Factors Affecting Our Performance

We believe that our financial performance has been, and in the foreseeable future will continue to be, primarily driven by the following factors. While each of these factors presents significant opportunities for our business, they also pose important challenges that we must successfully address in order to pursue our growth strategy and improve our results of operations. Our ability to successfully address the factors below is subject to various risks and uncertainties, including those factors set forth in the section titled “Risk Factors” included in our 2021 10-K.

New Customer Adoption of Our Platform

Our financial performance has been, and in the foreseeable future will continue to be, driven by our ability to increase the adoption of our platform and the installed base of our instruments. We plan to drive new customer adoption through a direct sales and marketing organization in the United States, China and parts of Europe and third party distributors in Europe, North America, the Middle East and Asia-Pacific. As of June 30, 2022, we market and sell our technology with an in-house commercial team of approximately 140 team members and also utilize our distribution network to market and sell across multiple countries. Our headcount was reduced from 210 commercial team members as of March 31, 2022 to 140 as of June 30, 2022 primarily as a result of our company reorganization and reduction in force (RIF), discussed below.

Recurring Revenues from Sales of our Chip Consumables

Our IsoCode chip consumables represent a source of recurring revenue from customers using our platform across a wide range of applications. Our instruments and consumables are designed to work together exclusively. As we expand our installed base of instruments, we expect consumable revenues to increase on an absolute basis and become an increasingly important contributor to our overall revenues.

Adoption of Our Platform Across Existing Customers’ Organizations

There is an opportunity to grow our installed base and expand the number of instruments within organizations that are already utilizing our platform to advance their research and therapeutic development by their purchasing of additional instruments to support multiple locations or to increase capacity.

Adoption of Our Platform for New Applications

We founded our company to help solve critical challenges to accelerating advanced medicines and since our inception, we have developed multiple applications spanning cancer immunology, cell and gene therapy, infectious diseases, inflammatory conditions, and neurological diseases. As we continue to deploy our platform, we intend to concurrently expand the breadth of applications for our technologies to encourage increased use of our platform across our addressable markets. We expect our investments in these efforts to increase as we develop and market new applications, including a diagnostic application.

Components of Our Results of Operations

Revenue

Revenue consists of sales of instruments and consumables in addition to service revenue. Our total revenue for the three and six months ended June 30, 2022 was $4.0 million and $8.9 million and $4.3 million and $7.5 million for the three and six months ended June 30, 2021. We expect that our revenue will be less than our expenses for the foreseeable future and that we will experience losses as we continue to expand our business.

Cost of Product and Service Revenue

The Company's cost of product revenue primarily consists of manufacturing related costs incurred in the production process, including personnel and related costs, costs of components and materials, labor and overhead, packaging and delivery costs and allocated costs for facilities and information technology. Cost of service revenue consists primarily of personnel and related costs of service and warranty costs to support our customers.

Company re-organization and reduction in force (RIF)

On April 11, 2022, the Company completed a re-organization of the Commercial team and company-wide RIF (Reduction in Force) which reduced total head count company-wide from approximately 500 as of March 31, 2022 to approximately 380 as of June 30, 2022. This action resulted in one-time non-recurring restructuring expenses of $3.7 million which were primarily associated with severance, benefits, and outplacement services.

While the RIF was executed on April 11, 2022, we have continued to pursue further efficiencies and expect to achieve even lower operating expenses across multiple areas of our business, including but not limited to further savings in salaries and salary-related expenses, consultants and other professional services, internal material usage and licenses fees, in the second half of 2022 as seek to implement an accelerated path towards profitability. While we expect operating expenses to be lower in the short-term, over the longer-term operating expenses will go up as revenue increases, to support a larger installed instrument base and higher consumables sales.

Research and Development Expenses

Research and development expenses include:

- costs to obtain licenses to intellectual property and related future payments should certain success, development and regulatory milestones be achieved;
- employee-related expenses, including salaries, benefits and stock-based compensation expense;
- costs of purchasing lab supplies and non-capital equipment used in our research and development activities;
- consulting and professional fees related to research and development activities; and
- facility costs, depreciation, and other expenses, which include direct and allocated expenses for rent and maintenance of facilities, insurance, and other supplies.

We expense research and development costs as incurred. Research and development activities are central to our business model.

Because of the numerous risks and uncertainties associated with product development, we cannot determine with certainty the duration and completion costs of our current or future research and development efforts.

General and Administrative Expenses

General and administrative expenses consist primarily of employee-related expenses, including salaries, benefits and stock-based compensation, for personnel in executive, finance, business development, facility and administrative functions. Other significant costs include facility costs not otherwise included in research and development expenses, legal fees relating to patent and corporate matters and fees for accounting, tax and consulting services.

We anticipate that our general and administrative expenses will increase in the long term to support continued expansion of our commercial, development and operating activities. These increases will likely include increased costs related to the hiring of additional personnel and fees to outside consultants, lawyers and accountants, among other expenses.

Sales and Marketing Expenses

Sales and marketing expenses consist primarily of compensation related expenses, including salaries, bonuses, benefits, non-cash stock-based compensation, for sales and marketing personnel, advertising and promotion expenses, consulting and subcontractor fees, sales commissions, recruiting fees, and various other selling expenses. We anticipate that our sales and marketing expenses will increase in the long term as we pursue growth and as we identify and expand into new markets, increase our product offerings, and expand our install base.

Grant Income

We are engaged in various Small Business Innovation Research ("SBIR") grants with the federal government to help fund the costs of certain research and development activities. We believe that we have complied with all contractual requirements of the SBIR grants through the date of the financial statements. We do not currently expect future grant income to be a material source of funding for the Company.

Research and Development State Tax Credits

Research and development ("R&D") tax credits exchanged for cash pursuant to the Connecticut R&D Tax Credit Exchange Program, which permits qualified small businesses engaged in R&D activities within Connecticut to exchange their unused R&D tax credits for a cash amount equal to 65% of the value of exchanged credits, are recorded as a receivable and other income in the year the R&D tax credits relate to, as it is reasonably assured that the R&D tax credits will be received, based upon our history of filing for and receiving the tax credits. R&D tax credits receivable where cash is expected to be received by us more than one year after the balance sheet date are classified as noncurrent in the consolidated balance sheets.

Fair Value Adjustment for Warrants and Loan Commitments

Warrants and loan commitments are freestanding financial instruments that qualify as liabilities and assets, respectively, required to be recorded at their estimated fair value at the inception date and remeasured at each reported balance sheet date thereafter until settlement, with gains and losses arising from changes in fair value recognized in the statement of operations during each period. Our preferred share warrants were converted to common share warrants upon our IPO and were reclassified from liabilities to equity for the year ended December 31, 2021.

Results of Operations

Comparisons of the Three Months Ended June 30, 2022 and 2021

The following table summarizes our results of operations for the three months ended June 30, 2022 and 2021, together with the dollar change in those items:

(in thousands)	Three months ended June 30, 2022	Three months ended June 30, 2021	Period to period change
Revenue			
Product revenue	$ 3,323	$ 4,089	$ (766)
Service revenue	682	200	482
Total revenue	4,005	4,289	(284)
Cost of product revenue	1,813	2,001	(188)
Cost of service revenue	116	4	112
Gross profit	2,076	2,284	(208)
Operating expenses:			
Research and development expenses	7,056	5,495	1,561
General and administrative expenses	8,447	5,186	3,261
Sales and marketing expenses	7,246	9,957	(2,711)
Restructuring expenses	3,699	—	3,699
Total operating expenses	26,448	20,638	5,810
Loss from operations	(24,372)	(18,354)	(6,018)
Other income (expense), net:			
Interest expense, net	(1,210)	(870)	(340)
Other income (expense), net	(24)	(1,330)	1,306
Net loss	$ (25,606)	$ (20,554)	$ (5,052)

Revenue

Total revenue decreased $0.3 million for the three months ended June 30, 2022 compared to the three months ended June 30, 2021. This consisted primarily of a decrease of $0.8 million from sales of instruments, partially offset by an increase of $0.5 million for service revenue. Consumables revenue was flat.

The decrease in instruments revenue for the three months ended June 30, 2022 was driven by a decrease in unit sales outside of North America and average sales price attributable to a difference in product mix between IsoLights and IsoSparks. Service revenue was up primarily due to additional collaboration revenue and an increase in service contracts compared to the prior period.

Gross Profit

Gross profit as a percentage of total revenues was 52% for the three months ended June 30, 2022 compared to 53% for the three months ended June 30, 2021.

Operating Expenses

Operating expenses increased by $5.8 million for the three months ended June 30, 2022 compared to the three months ended June 30, 2021. This included $3.6 million of one-time restructuring charges associated with the re-organization of the sales and marketing teams, manufacturing operations and research and development. These costs consisted of severance, benefits, and outplacement services provided as part of the Company's reduction in force. Total operating expenses of $26.4 million for the quarter ended June 30, 2022 represent a reduction of $4.3 million or 14% from the preceding quarter-ended March 31, 2022.

Research and Development Expenses

	Three months ended June 30,				Period to period	
(in thousands)	**2022**		**2021**		**change**	
Compensation related expenses	$	3,496	$	2,328	$	1,168
Professional fees and sub-contractor		560		398		162
Prototyping		905		793		112
Recruiting		—		153		(153)
Lab materials		117		333		(216)
Supplies expense		411		1,185		(774)
Depreciation and amortization		917		136		781
Other		650		169		481
Total	$	7,056	$	5,495	$	1,561

Research and development expenses increased by $1.6 million, or 28%, for the three months ended June 30, 2022 compared to the three months ended June 30, 2021, primarily due to increases in compensation related expenses of $1.2 million from hiring approximately 20 new employees year over year, a $0.2 million increase in professional fees, a $0.8 million increase in depreciation and amortization expense related to patent expense and an increase in other expenses of $0.5 million, partially offset by a $0.2 million decrease in lab materials, a decrease of $0.2 million in recruiting expenses, and a decrease in supplies expense of $0.8 million.

General and Administrative Expenses

General and administrative expenses increased by $3.3 million, or 63%, for the three months ended June 30, 2022 compared to the three months ended June 30, 2021, primarily due to increases in compensation related expenses of $2.1 million for additional personnel to support organizational growth, an increase of $0.1 million of professional fees related to process enhancements, an increase of $0.5 million in depreciation and amortization expenses, an increase of $0.4 million in software and networking expenses to support a larger organization, and an increase of $0.2 million in various other expenses.

Sales and Marketing Expenses

Sales and marketing expenses decreased by $2.7 million, or 27%, for the three months ended June 30, 2022 compared to the three months ended June 30, 2021, primarily due to decreases in compensation related expenses of $0.4 million, a decrease in professional fees of $1.3 million related to the reduced usage of consultants, a decrease in recruiting expenses of $0.7 million, a decrease in supplies expense of $0.6 million, partially offset by an increase in other expense of $0.3 million. Overall, the decrease was driven by the elimination of consultants, and a decreased use of supplies and materials.

Interest expense

As a result of the Credit Agreement we entered into on December 30, 2020, we had $45.9 million of borrowings outstanding as of June 30, 2022, and we recognized $1.2 million in interest expense for the three months ended June 30, 2022. We recognized $0.7 million in interest expense for the three months ended June 30, 2021.

Comparisons of the Six Months Ended June 30, 2022 and 2021

The following table summarizes our results of operations for the six months ended June 30, 2022 and 2021, together with the dollar change in those items:

(in thousands)	**Six months ended June 30, 2022**	**2021**	**Period to period change**
Revenue			
Product revenue	$ 7,777	$ 7,016	$ 761
Service revenue	1,139	507	632
Total revenue	8,916	7,523	1,393
Cost of product revenue	4,142	3,551	591
Cost of service revenue	142	28	114
Gross profit	4,632	3,944	688
Operating expenses:			
Research and development expenses	14,190	9,169	5,021
General and administrative expenses	19,923	9,564	10,359
Sales and marketing expenses	19,289	17,031	2,258
Restructuring expenses	3,699	—	3,699
Total operating expenses	57,101	35,764	21,337
Loss from operations	(52,469)	(31,820)	(20,649)
Other income (expense):			
Interest expense, net	(2,196)	(1,613)	(583)
Other income (expense), net	334	(2,680)	3,014
Net loss	$ (54,331)	$ (36,113)	(18,218)

Revenue

Total revenue increased $1.4 million for the six months ended June 30, 2022 compared to the six months ended June 30, 2021. This consisted primarily of an increase of $0.1 million from sales of instruments and $0.6 million from consumables and an increase of $0.6 million in service revenue.

The increase in instruments revenue for the six months ended June 30, 2022 was driven by an increase in unit sales and slightly offset by a decrease in average selling price due to product mix of IsoLights and IsoSparks. The increase in consumable revenue in 2022 was driven by an increase in the number of units at customer locations.

Gross Profit

Gross profit as a percentage of total revenues was 52% for the six months ended June 30, 2022 compared to 52% for the six months ended June 30, 2021.

Research and Development Expenses

(in thousands)	Six months ended June 30, 2022	Six months ended June 30, 2021	Period to period change
Compensation related expenses	$ 7,463	$ 4,042	$ 3,421
Professional fees and sub-contractor	988	722	266
Prototyping	1,348	1,187	161
Recruiting	115	318	(203)
Lab materials	890	512	378
Supplies expense	1,292	1,860	(568)
Depreciation and amortization	1,071	244	827
Other	1,023	284	739
Total	$ 14,190	$ 9,169	$ 5,021

Research and development expenses increased by $5.0 million, or 55%, for the six months ended June 30, 2022 compared to the six months ended June 30, 2021, primarily due to increases in compensation related expenses of $3.4 million from hiring approximately 20 new employees year over year, a $0.3 million increase in professional fees related to new product development and cost reduction projects, an increase of $0.4 million in lab materials, an increase of $0.2 million in prototyping for next generation product development, an increase of $0.8 million in other expenses primarily related to depreciation and amortization expense, and $0.7 million in other expenses, partially offset by a decrease of $0.2 million in recruiting expenses and a decrease of $0.6 million in supplies expense.

General and Administrative Expenses

General and administrative expenses increased by $10.4 million, or 108%, for the six months ended June 30, 2022 compared to the six months ended June 30, 2021, primarily due to increases in compensation related expenses of $5.5 million for additional personnel to support organizational growth, an increase of $1.0 million of professional fees related organizational process improvements, an increase of $0.4 million in office related expenses and an increase of $3.6 million in various other expenses, including increase of $1.0 million of technology costs and $1.5 million of depreciation and amortization expense.

Sales and Marketing Expenses

Sales and marketing expenses increased by $2.3 million, or 14%, for the six months ended June 30, 2022 compared to the six months ended June 30, 2021, primarily due to increases in compensation related expenses of $2.9 million for additional personnel added in the first quarter of 2022 and an increase various other office and selling expenses of $0.7 million, partially offset by a decrease in recruiting expenses of $1.1 million, Overall, the increase was driven by the carryover of head count from 2021 into the first quarter of 2022.

Change in fair value of warrants and loan commitments

As a result of changes in fair value, we recognized $0.3 million change in fair value adjustment of warrants and loan commitments for the six months ended June 30, 2022.

Interest expense

As a result of the Credit Agreement we entered into on December 30, 2020, we had $45.9 million of borrowings outstanding as of June 30, 2022, and we recognized $2.2 million in interest expense for the six months ended June 30, 2022. We recognized $1.5 million in interest expense for the six months ended June 30, 2021.

Liquidity and Capital Resources

At June 30, 2022, we had $71.6 million in cash. Cash as of June 30, 2022 decreased by $55.0 million compared to December 31, 2021, primarily due to the factors described under the heading “—Cash Flows” below. Our primary source of liquidity, other than cash on hand, has been cash flows from issuances of common stock in our IPO, issuances of preferred stock, debt financings and, to a lesser extent, grant income.

Cash Flows

Comparisons of the Six Months Ended June 30, 2022 and 2021

The following table provides information regarding our cash flows for the six months ended June 30, 2022 and 2021:

(in thousands)	2022	2021
Net cash provided by (used in):		
Operating activities	(64,268)	(33,861)
Investing activities	(5,779)	(22,110)
Financing activities	15,089	18,251
Net change in cash	$ (54,958)	$ (37,720)

Operating Activities

Net cash used by operating activities in the six months ended June 30, 2022 primarily consisted of net loss of $54.3 million, partially offset by net non-cash adjustments of $5.9 million, plus net changes in operating assets and liabilities of $15.9 million, including a $14.8 million inventory outflow. The primary non-cash adjustments to net income included share-based compensation of $2.3 million, depreciation and amortization expenses of $1.9 million and amortization of debt discount of $0.7 million. Cash flow impact from changes in net operating assets and liabilities were primarily driven by an increase in inventories and partially offset by increases in accounts payable and a decrease in other assets and accrued liabilities.

Net cash used by operating activities in the six months ended June 30, 2021 primarily consisted of net loss of $36.1 million, partially offset by net non-cash adjustments of $5.6 million, plus net changes in operating assets and liabilities of $3.3 million. The primary non-cash adjustments to net income were change in fair value of warrants and loan commitment of $4.0 million and depreciation and amortization costs of $0.8 million. Cash flow impacts from changes in net operating assets and liabilities were primarily driven by increases in inventories, accounts receivable and prepaid expense and other current assets, partially offset by increases in accrued liabilities and accounts payable.

Investing Activities

Net cash used in investing activities totaled $5.8 million in the six months ended June 30, 2022. We purchased $5.5 million of property and equipment. We paid $0.3 million related to patents acquired and patent costs that were capitalized.

Net cash used in investing activities totaled $22.1 million in the six months ended June 30, 2021. We purchased $2.0 million of property and equipment. We paid $20.1 million related to patents acquired and patent costs that were capitalized.

Financing Activities

Net cash provided by financing activities was $15.1 million in the six months ended June 30, 2022. We drew $15.0 million from our Tranche C and D term loans.

Net cash provided by financing activities was $18.3 million in the six months ended June 30, 2021. We raised cash through the issuance of Series D redeemable convertible preferred stock, with net proceeds of $10.0 million.

Funding Requirements

We expect to continue to generate operating losses in connection with our ongoing activities, particularly as we continue our research and development efforts and expand our business efforts. Furthermore, we have incurred and will continue to incur additional costs as a result of being a public company. Accordingly, we will need to obtain additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we would be forced to delay, reduce or eliminate our research and development programs or future commercialization efforts.

At the time of issuance of our unaudited consolidated interim financial statements for the six months ended June 30, 2022, we concluded that there was substantial doubt about our ability to continue as a going concern for one year from the issuance of such unaudited consolidated interim financial statements. However, we believe that, based on our current business plan, together with our existing cash as of June 30, 2022, and anticipated amendment with our lender as to the current revenue covenant, we will be able to fund our operating expenses and capital expenditure requirements into mid-2024.

We have based our projections of operating capital requirements on assumptions that may prove to be incorrect, and we may use all of our available capital resources sooner than we expect. Because of the numerous risks and uncertainties associated with our research and development efforts, we are unable to estimate the exact amount of our operating capital requirements. Our future capital requirements will depend on many factors, including:

- future research and development efforts;
- the need to service and refinance our indebtedness;
- our ability to enter into and terms and timing of any collaborations, licensing agreements or other arrangements;
- the costs of sales, marketing, distribution and manufacturing efforts;
- our headcount growth and associated costs as we expand our business;
- the costs of preparing, filing and prosecuting patent applications, maintaining and protecting our intellectual property rights and defending against intellectual property related claims; and
- the costs of operating as a public company

Until such time, if ever, as we can generate positive cash flows from operations, we expect to finance our additional cash needs through a combination of equity offerings, debt financings, sales of products and services to our customers and, to a lesser extent, grants. To the extent that we raise additional capital through the sale of equity or convertible debt securities, stockholder ownership interest will be diluted, and the terms of those securities may include liquidation or other preferences that adversely affect the rights of holders of common stock. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we raise funds through additional strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies or future revenue streams or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity offerings, debt financings or grants when needed, we may be required to delay, limit, or reduce our expansion efforts.

Contractual Obligations and Commitments

Contractual obligations represent future cash commitments and liabilities under agreements with third parties and exclude orders for goods and services entered into in the normal course of business that are not enforceable or legally binding.

On December 30, 2020, we entered into the Credit Agreement, which provides for senior secured financing of up to $50.0 million, originally consisting of a $25.0 million Tranche A term loan and a $25.0 million Tranche B term loan. The Tranche A term loan of $25.0 million was drawn at the initial closing of the Credit Agreement on December 30, 2020. The Credit Agreement was amended on May 27, 2021 to split the previously remaining $25.0 million delayed draw term loan commitments under the Credit Agreement into a $10.0 million Tranche B term loan and a $15.0 million Tranche C term loan. The Tranche B term loan of $10.0 million was drawn on May 27, 2021. The Credit Agreement was amended on March 30, 2022 to split the remaining $15.0 million Tranche C term loan into a $7.5 million Tranche C term loan and a $7.5 million Tranche D term loan. The Tranche C term loan was drawn on March 30, 2022. The Tranche D term loan was drawn on June 29, 2022.

Borrowings under the Credit Agreement bear interest at a rate per annum equal to the one-month LIBOR rate (with a minimum LIBOR rate for such purposes of 1.75%) plus a margin of 9.50% (11.25% at June 30, 2022). Monthly payments of interest only are due over the term of the Credit Agreement with no scheduled loan amortization. Unless accelerated prior to such date, all amounts outstanding under the Credit Agreement are due to be repaid on December 30, 2025. In addition, the Credit Agreement includes a quarterly minimum total revenue covenant for the applicable trailing twelve month period. On October 29, 2021, we entered into the Second Amendment to, among other things, eliminate the minimum total revenue covenant for the twelve months ending December 31, 2021 and reset the total minimum revenue covenants thereafter. Pursuant to the Second Amendment, the minimum total revenue covenant, as amended, has resumed testing for the twelve months ended March 31, 2022. The Company is currently in compliance with the minimum total revenue covenant as of June 30, 2022.

The following table summarizes our commitments to settle contractual obligations as of June 30, 2022:

(in thousands)	Total	Less than 1 year	1-3 Years	4-5 Years	More than 5 years
Lease commitments [1]	$ 6,476	$ 880	$ 4,900	$ 696	$ —
Purchase obligations [2]	36,250	3,250	10,500	17,500	5,000
Total	$ 42,726	$ 4,130	$ 15,400	$ 18,196	$ 5,000

(1) Represents commitments under our non-cancelable leases.

(2) Purchase obligations relate to our Patent Purchase Agreement with QIAGEN Sciences, LLC and QIAGEN GmbH for certain reagents.

Critical Accounting Policies and Significant Judgments and Estimates

The preparation of financial statements in accordance with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and accompanying notes. Management bases its estimates on historical experience, market and other conditions, and various other assumptions it believes to be reasonable. Although these estimates are based on management's best knowledge of current events and actions that may impact us in the future, the estimation process is, by its nature, uncertain given that estimates depend on events over which we may not have control. Though the impact of the COVID-19 pandemic to our business and operating results presents additional uncertainty, we continue to use the best information available to inform our critical accounting estimates. If market and other conditions change from those that we anticipate, our consolidated financial statements may be materially affected. In addition, if our assumptions change, we may need to revise our estimates, or take other corrective actions, either of which may also have a material effect on our consolidated financial statements.

During the three and six months ended June 30, 2022, there were no material changes to our critical accounting policies and use of estimates from those described under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Significant Judgments and Estimates" in the Form 10-K for the year ended December 31, 2021 and filed with the SEC on March 30, 2022.

Recent Accounting Pronouncements

Refer to Note 2, "Summary of Significant Accounting Policies," in the accompanying notes to the unaudited condensed consolidated financial statements included elsewhere in this Form 10-Q for a discussion of recent accounting pronouncements.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risk related to changes in interest rates. As of June 30, 2022, we had cash of $71.6 million. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of interest rates. As of June 30, 2022, our cash is held primarily in savings and checking accounts. Because of the short-term nature of the instruments in our portfolio, an immediate 10% change in the interest rate would not have a material impact on the fair market value of our investment portfolio or on our financial position or results of operations.

We are exposed to changes in the U.S. dollar based short term rates, specifically LIBOR. Fluctuations in LIBOR may affect the amount of interest expense we incur on borrowing indexed to LIBOR, such as borrowing under our Credit Agreement, which bear interest at a per annum equal to the one-month LIBOR rate (with a minimum LIBOR rate for such purposes of 1.75%) plus a margin of 9.5%.

With the transition away from LIBOR, borrowings under our Credit Agreement will be subject to an interest rate based on an alternate index to be agreed upon under the Credit Agreement; provided that if such alternate rate of interest shall be less than 1.75%, such rate shall be deemed to be 1.75% for the purposes of the Credit Agreement.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Form 10-Q. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgement in evaluating the cost-benefit relationship of possible controls and procedures. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of June 30, 2022.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the period covered by this Form 10-Q that has materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Part II - Other Information

Item 1. Legal Proceedings

From time to time we are a party to various litigation matters incidental to the conduct of our business. We are not presently party to any legal proceedings the resolution of which we believe would have a material adverse effect on our business, prospects, financial condition, liquidity, results of operation, cash flows or capital levels.

Item 1A. Risk Factors

The reader should carefully consider, in connection with the other information in this report, the risk factors discussed in “Part I, Item 1A. Risk Factors” of the Company’s 2021 Annual Report on 10-K filed with the SEC on March 30, 2022. There have been no material changes to such matters during the quarter ended June 30, 2022. These factors may cause our actual results to differ materially from those stated in forward-looking statements contained in this document and elsewhere.

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

None.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit Number	Exhibit Description
31.1*	CEO Certification pursuant to Section 302 of the Sarbanes-Oxley Act
31.2*	CFO Certification pursuant to Section 302 of the Sarbanes-Oxley Act
32.1*‡	CEO Certification pursuant to Section 906 of the Sarbanes-Oxley Act
32.2*‡	CFO Certification pursuant to Section 906 of the Sarbanes-Oxley Act
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document
104*	Cover Page Interactive Data File (contained in Exhibit 101)

* Filed herewith.

† Indicates management contract or compensatory plan.

§ Portions of the exhibit, marked by brackets, have been omitted because the omitted information (i) is not material and (ii) would likely cause competitive harm if publicly disclosed.

‡ The certifications attached as Exhibits 32.1 and 32.2 that accompany this Quarterly Report on Form 10-Q are deemed furnished and not filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of IsoPlexis Corporation under the Securities Act of 1933, as amended, or the Securities Act of 1934, as amended, whether made before or after the date of this Quarterly Report on Form 10-Q, irrespective of any general incorporation language contained in such filing.

SIGNATURES

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

		IsoPlexis Corporation
Date: August 15, 2022	By:	/s/ Sean Mackay
	Name:	Sean Mackay
	Title:	Chief Executive Officer and Director (Principal Executive Officer)
Date: August 15, 2022	By:	/s/ John Strahley
	Name:	John Strahley
	Title:	Chief Financial Officer (Principal Financial Officer)

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Sean Mackay, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of IsoPlexis Corporation;

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(s) 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 15s-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

    a. 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	By:	/s/ Sean Mackay
	Name:	Sean Mackay
	Title:	Chief Executive Officer and Director (Principal Executive Officer)

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, John Strahley, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of IsoPlexis Corporation;

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(s) 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 15s-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

    a. 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	By:	/s/ John Strahley
	Name:	John Strahley
	Title:	Chief Financial Officer
		(Principal Financial Officer)

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of IsoPlexis Corporation (the “Company”) for the period ended June 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), the undersigned, in the capacity and on the date indicated below, hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to his knowledge:

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

1. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 15, 2022	By:	/s/ Sean Mackay
	Name:	Sean Mackay
	Title:	Chief Executive Officer and Director (Principal Executive Officer)

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

The foregoing certification is being furnished in accordance with Securities and Exchange Commission Release No. 34-47551 and shall not be considered filed as part of the Report.

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of IsoPlexis Corporation (the “Company”) for the period ended June 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), the undersigned, in the capacity and on the date indicated below, hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to his knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) 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.

Date: August 15, 2022	By:	/s/ John Strahley
	Name:	John Strahley
	Title:	Chief Financial Officer
		(Principal Financial Officer)

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

The foregoing certification is being furnished in accordance with Securities and Exchange Commission Release No. 34-47551 and shall not be considered filed as part of the Report.