

SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-Q

☒ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended **June 30, 2023**

OR

☐ 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: **001-37721**

Acacia Research Corporation

(Name of registrant as specified in its charter)

Delaware

95-4405754

(State or other jurisdiction of Incorporation or Organization)

(I.R.S. Employer identification No.)

767 Third Avenue,

6th Floor

New York,

NY

(Address of principal executive offices)

10017

(Zip Code)

(332) 236-8500

(Registrant's telephone number, including area code)

N/A

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

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

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common Stock	ACTG	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated Filer	<input type="checkbox"/>	Accelerated Filer	<input type="checkbox"/>
Non-accelerated Filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging Growth Company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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

The number of shares outstanding of the registrant's common stock, par value \$0.001 per share, as of July 31, 2023, was 99,886,322.

ACACIA RESEARCH CORPORATION
FORM 10-Q
FOR THE QUARTERLY PERIOD ENDED
June 30, 2023

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2023 (this “Quarterly Report”) contains forward-looking statements within the meaning of the federal securities laws. To the extent that statements in this Quarterly Report are not recitations of historical fact, such statements constitute forward-looking statements, which, by definition, involve risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. These forward-looking statements are intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. Throughout this Quarterly Report, we have attempted to identify forward-looking statements by using words such as “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “forecasts,” “goal,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “seek,” “should,” “will,” or other forms of these words or similar words or expressions or the negative thereof, although not all forward-looking statements contain these terms. Forward-looking statements include statements regarding, among other things, our business, operating, development, investment and finance strategies, our relationship with Starboard Value LP, acquisition and development activities, financial results of our acquired businesses, intellectual property (“IP”), licensing and enforcement activities, other related business activities, capital expenditures, earnings, litigation, regulatory matters, markets for our services, liquidity and capital resources and accounting matters. Forward-looking statements are subject to substantial risks and uncertainties that could cause our future business, financial condition, results of operations or performance to differ materially from our historical results or those expressed or implied in any forward-looking statement contained herein. All of our forward-looking statements include assumptions underlying or relating to such statements and are subject to numerous factors that present considerable risks and uncertainties, including, without limitation:

- Any inability to acquire additional operating businesses and intellectual property assets;
- Costs related to acquiring additional operating businesses and intellectual property assets;
- Any inability to retain employees and management team(s) at the Company and our operating businesses;
- Any inability to successfully run our platform and integrate our operating businesses;
- Facts that are not revealed in the due diligence process in connection with new acquisitions;
- Any determination that we may be deemed to be an investment company under the Investment Company Act of 1940, as amended;
- Disruptions or uncertainty caused by changes to the Company's management team and board of directors;
- Disruptions or delays caused by outsourcing services to third-party service providers;
- Changes in legislation, regulations, and rules associated with patent and tax law;
- Cybersecurity incidents, including cyberattacks, breaches of security and unauthorized access to or disclosure of confidential information;
- Fluctuations in patent-related legal expenses;
- Findings by any relevant patent office that our patents are invalid or unenforceable;
- Our ability to retain legal counsel in connection with enforcement of our intellectual property;
- Delays in successful prosecution, enforcement, and licensing of our patent portfolio;
- Any inability of our operating businesses to protect their intellectual property;
- Any inability of our operating businesses to develop new products and enhance existing products;
- The loss of any Printronix major customers that generates a large portion of its revenue or the decrease in demand for Printronix' products;
- Any supply chain interruption or inability to manage inventory levels of our operating businesses;
- Printronix's inability to perform satisfactorily under service contracts; and
- Events that are outside of our control, such as political conditions and unrest in international markets, terrorist attacks, malicious human acts, hurricanes and other national disasters, pandemics, including the COVID-19 pandemic, and other similar events.

We have based our forward-looking statements on management's current expectations and projections about trends affecting our business and industry and other future events. Although we do not make forward-looking statements unless we believe we have a reasonable basis for doing so, we cannot guarantee their accuracy. For additional information related to the risks and uncertainties that may cause actual results to differ materially from those expressed or implied in the forward-looking statements described in this Quarterly Report, refer to the section entitled “Management's Discussion and Analysis of Financial Condition and Results of Operations,” and the section entitled “Risk Factors” included in Part I, Item 1A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the Securities and Exchange Commission (“SEC”), on March 17, 2023 (our “Annual Report”), as well as in our other public filings with the SEC. In addition, actual results may differ materially as a result of additional risks and uncertainties of which we are currently unaware or which we do not currently view as material to our business.

The information contained in this Quarterly Report is not a complete description of our business or the risks associated with an investment in our common stock. We urge you to carefully review and consider the various disclosures made by us in this Quarterly Report and in our other reports filed with the SEC. You should read this Quarterly Report in its entirety, together with the documents that we file as exhibits to this Quarterly Report and the documents that we incorporate by reference into this Quarterly Report, with the understanding that our future results may be materially different from what we currently expect. The forward-looking statements we make speak only as of the date on which they are made. We expressly disclaim any intent or obligation to update any forward-looking statements after the date hereof to conform such statements to actual results or to changes in our opinions or expectations, except as required by applicable law or the rules of The Nasdaq Stock Market LLC. If we do update or correct any forward-looking statements, investors should not conclude that we will make additional updates or corrections.

We qualify all of our forward-looking statements by these cautionary statements.

PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

ACACIA RESEARCH CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share data)

	June 30, 2023	December 31, 2022
	(Unaudited)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 355,188	\$ 287,786
Equity securities	52,853	61,608
Equity securities without readily determinable fair value	5,816	5,816
Equity method investments	30,934	30,934
Accounts receivable, net	6,267	8,231
Inventories	14,006	14,222
Prepaid expenses and other current assets	20,728	19,388
Total current assets	485,792	427,985
Property, plant and equipment, net	2,950	3,537
Goodwill	7,541	7,541
Other intangible assets, net	30,590	36,658
Leased right-of-use assets	910	2,005
Other non-current assets	6,925	5,202
Total assets	\$ 534,708	\$ 482,928
LIABILITIES, REDEEMABLE CONVERTIBLE PREFERRED STOCK, AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 5,789	\$ 6,036
Accrued expenses and other current liabilities	4,461	14,058
Accrued compensation	5,505	4,737
Royalties and contingent legal fees payable	579	699
Deferred revenue	1,022	1,229
Senior secured notes payable	60,450	60,450
Total current liabilities	77,806	87,209
Deferred revenue, net of current portion	535	568
Series A embedded derivative liabilities	12,881	16,835
Series B warrant liabilities	82,018	84,780
Long-term lease liabilities	898	1,873
Deferred income tax liabilities, net	125	742
Other long-term liabilities	1,858	1,675
Total liabilities	176,121	193,682
Commitments and contingencies		
Series A redeemable convertible preferred stock, par value \$ 0.001 per share; stated value \$ 100 per share; 350,000 shares authorized, issued and outstanding as of June 30, 2023 and December 31, 2022; aggregate liquidation preference of \$35,000 as of June 30, 2023 and December 31, 2022	23,154	19,924
Stockholders' equity:		
Preferred stock, par value \$ 0.001 per share; 10,000,000 shares authorized; no shares issued or outstanding	—	—
Common stock, par value \$ 0.001 per share; 300,000,000 shares authorized; 58,754,795 and 43,484,867 shares issued and outstanding as of June 30, 2023 and December 31, 2022, respectively	58	43
Treasury stock, at cost, 16,183,703 shares as of June 30, 2023 and December 31, 2022	(98,258)	(98,258)
Additional paid-in capital	738,712	663,284
Accumulated deficit	(316,121)	(306,789)
Total Acacia Research Corporation stockholders' equity	324,391	258,280
Noncontrolling interests	11,042	11,042
Total stockholders' equity	335,433	269,322
Total liabilities, redeemable convertible preferred stock, and stockholders' equity	\$ 534,708	\$ 482,928

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

ACACIA RESEARCH CORPORATION
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except share and per share data)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Revenues:				
Intellectual property operations	\$ 394	\$ 8,062	\$ 4,570	\$ 10,677
Industrial operations	7,510	8,655	18,137	19,547
Total revenues	7,904	16,717	22,707	30,224
Costs and expenses:				
Cost of revenues - intellectual property operations	5,010	4,634	9,748	9,198
Cost of sales - industrial operations	3,933	4,592	9,153	8,784
Engineering and development expenses - industrial operations	205	145	421	335
Sales and marketing expenses - industrial operations	1,859	2,294	3,772	4,310
General and administrative expenses	9,426	10,722	21,466	21,775
Total costs and expenses	20,433	22,387	44,560	44,402
Operating loss	(12,529)	(5,670)	(21,853)	(14,178)
Other (expense) income:				
Equity securities investments:				
Change in fair value of equity securities	6,617	(57,647)	9,960	(229,850)
(Loss) gain on sale of equity securities	(7,999)	11,498	(9,360)	78,374
Earnings on equity investment in joint venture	—	42,085	—	42,085
Net realized and unrealized (loss) gain	(1,382)	(4,064)	600	(109,391)
Change in fair value of the Series A and B warrants and embedded derivatives	(9,935)	(35,146)	6,716	(7,048)
Gain (loss) on foreign currency exchange	15	(1,814)	95	(2,627)
Interest expense on Senior Secured Notes	(900)	(1,859)	(1,800)	(4,460)
Interest income and other, net	4,307	863	7,748	1,870
Total other (expense) income	(7,895)	(42,020)	13,359	(121,656)
Loss before income taxes	(20,424)	(47,690)	(8,494)	(135,834)
Income tax benefit (expense)	1,645	200	(838)	15,078
Net loss including noncontrolling interests in subsidiaries	(18,779)	(47,490)	(9,332)	(120,756)
Net income attributable to noncontrolling interests in subsidiaries	—	(14,013)	—	(14,013)
Net loss attributable to Acacia Research Corporation	\$ (18,779)	\$ (61,503)	\$ (9,332)	\$ (134,769)
Loss per share:				
Net loss attributable to common stockholders - Basic	\$ (21,155)	\$ (63,443)	\$ (13,962)	\$ (138,560)
Weighted average number of shares outstanding - Basic	58,408,711	43,988,677	53,219,152	45,259,435
Basic net loss per common share	\$ (0.36)	\$ (1.44)	\$ (0.26)	\$ (3.06)
Net loss attributable to common stockholders - Diluted	\$ (21,155)	\$ (63,443)	\$ (13,962)	\$ (138,560)
Weighted average number of shares outstanding - Diluted	58,408,711	43,988,677	53,219,152	45,259,435
Diluted net loss per common share	\$ (0.36)	\$ (1.44)	\$ (0.26)	\$ (3.06)

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

ACACIA RESEARCH CORPORATION
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF SERIES A REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY
(In thousands, except share data)

Three Months Ended June 30, 2023

	Series A Redeemable Convertible Preferred Stock		Common Stock					Noncontrolling Interests in Operating Subsidiaries	Total Stockholders' Equity
	Shares	Amount	Shares	Amount	Treasury Stock	Additional Paid-in Capital	Accumulated Deficit		
Balance at March 31, 2023	350,000	\$ 21,478	58,551,798	\$ 58	\$ (98,258)	\$ 740,187	\$ (297,342)	\$ 11,042	\$ 355,687
Net loss including noncontrolling interests in subsidiaries	—	—	—	—	—	—	(18,779)	—	(18,779)
Accretion of Series A Redeemable Convertible Preferred Stock to redemption value	—	1,676	—	—	—	(1,676)	—	—	(1,676)
Dividend on Series A Redeemable Convertible Preferred Stock	—	—	—	—	—	(700)	—	—	(700)
Stock options exercised	—	—	59,568	—	—	206	—	—	206
Issuance of common stock for vesting of restricted stock units	—	—	202,810	—	—	—	—	—	—
Issuance of common stock for unvested restricted stock awards, net of forfeitures	—	—	(16,667)	—	—	—	—	—	—
Shares withheld related to net share settlement of share-based awards	—	—	(42,714)	—	—	(179)	—	—	(179)
Compensation expense for share-based awards	—	—	—	—	—	874	—	—	874
Balance at June 30, 2023	350,000	\$ 23,154	58,754,795	\$ 58	\$ (98,258)	\$ 738,712	\$ (316,121)	\$ 11,042	\$ 335,433

Three Months Ended June 30, 2022

	Series A Redeemable Convertible Preferred Stock		Common Stock					Noncontrolling Interests in Operating Subsidiaries		Total Stockholders' Equity
	Shares	Amount	Shares	Amount	Treasury Stock	Additional Paid-in Capital	Accumulated Deficit			
Balance at March 31, 2022	350,000	\$ 15,904	46,754,930	\$ 47	\$ (58,267)	\$ 647,640	\$ (254,990)	\$	11,042	\$ 345,472
Net loss including noncontrolling interests in subsidiaries	—	—	—	—	—	—	(61,503)		14,013	(47,490)
Accretion of Series A Redeemable Convertible Preferred Stock to redemption value	—	1,241	—	—	—	(1,241)	—		—	(1,241)
Dividend on Series A Redeemable Convertible Preferred Stock	—	—	—	—	—	(699)	—		—	(699)
Issuance of common stock for vesting of restricted stock units	—	—	160,501	—	—	—	—		—	—
Issuance of common stock for unvested restricted stock awards, net of forfeitures	—	—	(50,000)	—	—	—	—		—	—
Shares withheld related to net share settlement of share-based awards	—	—	(96,147)	—	—	(431)	—		—	(431)
Compensation expense for share-based awards	—	—	—	—	—	1,083	—		—	1,083
Repurchase of common stock	—	—	(6,146,819)	(6)	(28,514)	—	—		—	(28,520)
Balance at June 30, 2022	350,000	\$ 17,145	40,622,465	\$ 41	\$ (86,781)	\$ 646,352	\$ (316,493)	\$	25,055	\$ 268,174

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

ACACIA RESEARCH CORPORATION
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF SERIES A REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY
(In thousands, except share data)

	Six Months Ended June 30, 2023								
	Series A Redeemable Convertible Preferred Stock		Common Stock		Treasury Stock	Additional Paid-in Capital	Accumulated Deficit	Noncontrolling Interests in Operating Subsidiaries	Total Stockholders' Equity
	Shares	Amount	Shares	Amount					
Balance at December 31, 2022	350,000	\$ 19,924	43,484,867	\$ 43	\$ (98,258)	\$ 663,284	\$ (306,789)	\$ 11,042	\$ 269,322
Net income including noncontrolling interests in subsidiaries	—	—	—	—	—	—	(9,332)	—	(9,332)
Accretion of Series A Redeemable Convertible Preferred Stock to redemption value	—	3,230	—	—	—	(3,230)	—	—	(3,230)
Dividend on Series A Redeemable Convertible Preferred Stock	—	—	—	—	—	(1,400)	—	—	(1,400)
Stock options exercised	—	—	59,568	—	—	206	—	—	206
Issuance of common stock from the Rights Offering	—	—	15,068,753	15	—	79,096	—	—	79,111
Issuance of common stock for vesting of restricted stock units	—	—	313,351	—	—	—	—	—	—
Issuance of common stock for unvested restricted stock awards, net of forfeitures	—	—	(34,167)	—	—	—	—	—	—
Shares withheld related to net share settlement of share-based awards	—	—	(137,577)	—	—	(595)	—	—	(595)
Compensation expense for share-based awards	—	—	—	—	—	1,351	—	—	1,351
Balance at June 30, 2023	350,000	\$ 23,154	58,754,795	\$ 58	\$ (98,258)	\$ 738,712	\$ (316,121)	\$ 11,042	\$ 335,433

Six Months Ended June 30, 2022

	Series A Redeemable Convertible Preferred Stock		Common Stock					Noncontrolling Interests in Operating Subsidiaries		Total Stockholders' Equity
	Shares	Amount	Shares	Amount	Treasury Stock	Additional Paid-in Capital	Accumulated Deficit			
Balance at December 31, 2021	350,000	\$ 14,753	48,807,748	\$ 49	\$ (47,281)	\$ 648,389	\$ (181,724)	\$	11,042	\$ 430,475
Net loss including noncontrolling interests in subsidiaries	—	—	—	—	—	—	(134,769)		14,013	(120,756)
Accretion of Series A Redeemable Convertible Preferred Stock to redemption value	—	2,392	—	—	—	(2,392)	—		—	(2,392)
Dividend on Series A Redeemable Convertible Preferred Stock	—	—	—	—	—	(1,399)	—		—	(1,399)
Issuance of common stock for vesting of restricted stock units	—	—	175,501	—	—	—	—		—	—
Issuance of common stock for unvested restricted stock awards, net of forfeitures	—	—	242,667	—	—	—	—		—	—
Shares withheld related to net share settlement of share-based awards	—	—	(114,917)	—	—	(503)	—		—	(503)
Compensation expense for share-based awards	—	—	—	—	—	2,257	—		—	2,257
Repurchase of common stock	—	—	(8,488,534)	(8)	(39,500)	—	—		—	(39,508)
Balance at June 30, 2022	350,000	\$ 17,145	40,622,465	\$ 41	\$ (86,781)	\$ 646,352	\$ (316,493)	\$	25,055	\$ 268,174

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

ACACIA RESEARCH CORPORATION
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Six Months Ended June 30,	
	2023	2022
Cash flows from operating activities:		
Net loss including noncontrolling interests in subsidiaries	\$ (9,332)	\$ (120,756)
Adjustments to reconcile net loss including noncontrolling interests in subsidiaries to net cash used in operating activities:		
Depreciation and amortization	6,789	6,777
Amortization of debt discount and issuance costs	—	56
Change in fair value of Series A redeemable convertible preferred stock embedded derivatives	(3,954)	5,151
Change in fair value of Series A warrants	—	1,494
Change in fair value of Series B warrants	(2,762)	403
Compensation expense for share-based awards	1,351	2,257
(Gain) loss on foreign currency exchange	(95)	2,627
Change in fair value of equity securities	(9,960)	229,850
Gain (loss) on sale of equity securities	9,360	(78,374)
Earnings on equity investment in joint venture	—	(42,085)
Deferred income taxes	(617)	(15,500)
Changes in assets and liabilities:		
Accounts receivable	2,629	(4,339)
Inventories	216	(3,125)
Prepaid expenses and other assets	(1,765)	(3,135)
Accounts payable and accrued expenses	(10,624)	723
Royalties and contingent legal fees payable	(120)	118
Deferred revenue	(238)	305
Net cash used in operating activities	(19,122)	(17,553)
Cash flows from investing activities:		
Patent acquisition	—	(5,000)
Purchases of equity securities	(5,843)	(107,537)
Sales of equity securities	15,198	191,494
Purchases of property and equipment	(137)	(410)
Net cash provided by investing activities	9,218	78,547
Cash flows from financing activities:		
Repurchase of common stock	—	(39,508)
Paydown of Senior Secured Notes	—	(65,000)
Dividend on Series A Redeemable Convertible Preferred Stock	(1,400)	(1,399)
Taxes paid related to net share settlement of share-based awards	(595)	(503)
Proceeds from Rights Offering	79,111	—
Proceeds from exercise of stock options	206	—
Net cash provided by (used in) financing activities	77,322	(106,410)
Effect of exchange rates on cash and cash equivalents	(16)	—
Increase (decrease) in cash and cash equivalents	67,402	(45,416)
Cash and cash equivalents, beginning	287,786	309,361
Cash and cash equivalents, ending	\$ 355,188	\$ 263,945
Supplemental schedule of cash flow information:		
Interest paid	\$ 1,800	\$ 4,879
Income taxes paid	551	37

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

ACACIA RESEARCH CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

1. DESCRIPTION OF BUSINESS

Acacia Research Corporation (the “Company,” “Acacia,” “we,” “us,” or “our”) is an opportunistic capital platform that purchases businesses based on the differentials between public and private market valuations. We use a wide range of transactional and operational capabilities to realize the intrinsic value in the businesses that we acquire. Our ideal transactions include the acquisition of public or private companies, the acquisition of divisions of other companies, or structured transactions that can result in the recapitalization or restructuring of the ownership of a business to enhance value.

Our focus is companies with market values in the sub-\$ 2 billion range and particularly on businesses valued at \$ 1 billion or less. We are, however, opportunistic, and may pursue acquisitions that are larger under the right circumstance.

We operate our business based on three key principles of People, Process and Performance and have built a management team with demonstrated expertise in Research, Transactions and Execution, and Operations and Management of our targeted acquisitions.

We utilized these skill sets and resources to acquire a portfolio of equity securities of public and private life science businesses, or the “Life Sciences Portfolio,” in June 2020. As of June 30, 2023, we have monetized a majority of the portfolio while retaining an interest in a number of operating businesses, including a controlling interest in one of the companies in the portfolio. Further, some of the businesses in which we continue to hold an interest generate income through the receipt of royalties. Refer to Note 3 for additional information.

Relationship with Starboard Value, LP

Our strategic relationship with Starboard Value, LP (“Starboard”) provides us access to industry expertise, and operating partners and industry experts to evaluate potential acquisition opportunities and enhance the oversight and value creation of such businesses once acquired. Starboard has provided, and we expect will continue to provide, ready access to its extensive network of industry executives and, as part of our relationship, Starboard has assisted, and we expect will continue to assist, with sourcing and evaluating appropriate acquisition opportunities.

Recapitalization

On October 30, 2022, the Company entered into a Recapitalization Agreement (the “Recapitalization Agreement”) with Starboard and certain funds and accounts affiliated with, or managed by, Starboard (collectively, the “Investors”), pursuant to which, among other things, the Company and Starboard agreed to enter into a series of transactions (the “Recapitalization”) to restructure Starboard’s existing investments in the Company in order to simplify the Company’s capital structure. Under the Recapitalization Agreement, the Company and Starboard agreed to take certain actions in connection with the Recapitalization, including submitting a proposal for stockholder approval to remove the “4.89% blocker” provision contained in the Company’s Amended and Restated Certificate of Designations, Preferences and Rights of Series A Convertible Preferred Stock (the “Amended and Restated Certificate of Designations”). The Company’s stockholders approved the Second Amended and Restated Certificate of Designations (the “Second Amended and Restated Certificate of Designations”) at the Company’s annual meeting of stockholders held on May 16, 2023 which became effective on June 30, 2023. Subsequently, and in accordance with the terms contained in the Second Amended and Restated Certificate of Designations and the Recapitalization Agreement, on July 13, 2023, Starboard converted an aggregate amount of 350,000 shares of Series A Convertible Preferred Stock of the Company, par value \$0.001 per share (the “Series A Redeemable Convertible Preferred Stock”) into 9,616,746 shares of common stock, which included 27,704 shares of common stock issued in respect of accrued and unpaid dividends (the “Preferred Stock Conversion”). Further to the terms of the Recapitalization Agreement and in accordance with the terms of the Company’s Series B Warrants (the “Series B Warrants”), on July 13, 2023, Starboard also exercised 31,506,849 of the Series B Warrants through a combination of a “Note Cancellation” and a “Limited Cash Exercise” (each as defined in the Series B Warrants), resulting in the receipt by Starboard of 31,506,849 shares of common stock (the “Series B Warrants Exercise” and, together with the Preferred Stock Conversion, the “Recapitalization Transactions”), the cancellation of \$60.0 million aggregate principal amount of the Company’s senior secured notes held by Starboard (as described further in Note 8, the “Senior Secured Notes”) and the receipt by the Company of aggregate gross proceeds of approximately \$55.0 million. As a result of the Recapitalization Transactions, Starboard beneficially owns 61,123,595 shares of common stock, representing approximately 61.2% of the

common stock based on 99,886,322 shares of common stock issued and outstanding as of July 13, 2023. No shares of Series A Redeemable Convertible Preferred Stock, no Series B Warrants, nor any Senior Secured Notes remain outstanding. Refer to Note 8 for a detailed description of the Recapitalization and the Recapitalization Transactions.

Intellectual Property Operations – Patent Licensing, Enforcement and Technologies Business

The Company through its Patent Licensing, Enforcement and Technologies Business invests in intellectual property and related absolute return assets and engages in the licensing and enforcement of patented technologies. Through our Patent Licensing, Enforcement and Technologies Business, operated under our wholly owned subsidiary Acacia Research Group, LLC, and its wholly-owned subsidiaries (collectively “ARG”), we are a principal in the licensing and enforcement of patent portfolios, with our operating subsidiaries obtaining the rights in the patent portfolio or purchasing the patent portfolio outright. While we, from time to time, partner with inventors and patent owners, from small entities to large corporations, we assume all responsibility for advancing operational expenses while pursuing a patent licensing and enforcement program. When applicable, we share net licensing revenue with our patent partners as that program matures, on a pre-arranged and negotiated basis. We may also provide upfront capital to patent owners as an advance against future licensing revenue.

Currently, on a consolidated basis, our operating subsidiaries own or control the rights to multiple patent portfolios, which include U.S. patents and certain foreign counterparts, covering technologies used in a variety of industries. ARG generates revenues and related cash flows from the granting of IP rights for the use of patented technologies that its operating subsidiaries control or own.

Our Patent Licensing, Enforcement and Technologies Business depends upon the identification and investment in new patents, inventions and companies that own IP through relationships with inventors, universities, research institutions, technology companies and others. If ARG's operating subsidiaries are unable to maintain those relationships and identify and grow new relationships, then they may not be able to identify new technology-based opportunities for sustainable revenue and/or revenue growth.

During the six months ended June 30, 2023 and the year ended December 31, 2022, ARG did not obtain control of any new patent portfolios.

Industrial Operations Acquisition

On October 7, 2021, we consummated our first operating company acquisition of Printronix Holding Corporation and subsidiaries (“Printronix”). Printronix is a leading manufacturer and distributor of industrial impact printers, also known as line matrix printers, and related consumables and services. The Printronix business serves a diverse group of customers that operate across healthcare, food and beverage, manufacturing and logistics, and other sectors. This mature technology is known for its ability to operate in hazardous environments. Printronix has a manufacturing site located in Malaysia and third-party configuration sites located in the United States, Singapore and Holland, along with sales and support locations around the world to support its global network of users, channel partners and strategic alliances. This acquisition was made at what we believe to be an attractive purchase price, and we are now supporting existing management in its initiative to reduce costs and operate more efficiently and in its execution of strategic partnerships to generate growth.

We acquired all of the outstanding stock of Printronix, for a cash purchase price of approximately \$ 37.0 million, which included an initial \$33.0 million cash payment and a \$4.0 million working capital adjustment. The Company's consolidated financial statements include Printronix's consolidated operations.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Accounting Principles

The consolidated financial statements and accompanying notes are prepared on the accrual basis of accounting in accordance with generally accepted accounting principles in the United States of America (“U.S. GAAP”).

Principles of Consolidation

The consolidated financial statements include the accounts of Acacia and its wholly and majority-owned and controlled subsidiaries. All intercompany transactions and balances have been eliminated in consolidation.

Noncontrolling interests in Acacia's majority-owned and controlled operating subsidiaries ("noncontrolling interests") are separately presented as a component of stockholders' equity. Consolidated net income or (loss) is adjusted to include the net (income) or loss attributed to noncontrolling interests in the consolidated statements of operations. Refer to the Consolidated Statements of Series A Redeemable Convertible Preferred Stock and Stockholders' Equity for noncontrolling interests activity.

In 2020, in connection with the transaction with Link Fund Solutions Limited, which is more fully described in Note 3, the Company acquired equity securities of Malin J1 Limited ("MalinJ1"). MalinJ1 is included in the Company's consolidated financial statements because the Company, through its interest in the equity securities of MalinJ1, has the ability to control the operations and activities of MalinJ1. Viamet HoldCo LLC, a Delaware limited liability company and wholly-owned subsidiary of Acacia, is the majority shareholder of MalinJ1.

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with U.S. GAAP for interim financial information, the instructions to Form 10-Q and Rule 10-01 of Regulation S-X. Accordingly, certain information and note disclosures required by U.S. GAAP in annual financial statements have been omitted or condensed in accordance with quarterly reporting requirements of the Securities and Exchange Commission ("SEC"). These interim unaudited condensed consolidated financial statements and notes hereto should be read in conjunction with the consolidated financial statements and notes thereto for the year ended December 31, 2022, as reported by Acacia in its Annual Report on Form 10-K filed with the SEC on March 17, 2023, as well as in our other public filings with the SEC. The condensed consolidated interim financial statements of Acacia include all adjustments of a normal recurring nature which, in the opinion of management, are necessary for a fair statement of Acacia's consolidated financial position as of June 30, 2023, and results of operations and its cash flows for the interim periods presented. The consolidated results of operations for the three and six months ended June 30, 2023 are not necessarily indicative of the results to be expected for the entire fiscal year.

Impairment of Investments

Acacia reviews its investments quarterly for indicators of other-than-temporary impairment. This determination requires significant judgment. In making this judgment, Acacia considers available quantitative and qualitative evidence in evaluating potential impairment of its investments. If the cost of an investment exceeds its fair value, Acacia evaluates, among other factors, general market conditions and the duration and extent to which the fair value is less than cost. Acacia also considers specific adverse conditions related to the financial health of and business outlook for the investee, including industry and sector performance, changes in technology, and operational and financing cash flow factors. Once a decline in fair value is determined to be other-than-temporary, an impairment charge is recorded in the consolidated statements of operations and a new cost basis in the investment is established.

Accounts Receivable and Allowance for Credit Losses

Intellectual Property Operations

ARG performs credit evaluations of its licensees with significant receivable balances, if any, and has not experienced any significant credit losses. Accounts receivable are recorded at the executed contract amount and generally do not bear interest. Collateral is not required. An allowance for credit losses may be established to reflect the Company's best estimate of probable losses inherent in the accounts receivable balance, and is reflected as a contra-asset account on the balance sheets and a charge to general and administrative expenses in the consolidated statements of operations for the applicable period. The allowance is determined based on known troubled accounts, historical experience, and other currently available evidence. There was no allowance for credit losses established as of June 30, 2023 and December 31, 2022.

Industrial Operations

Printronic's accounts receivable are recorded at the invoiced amount and do not bear interest. Printronix performs initial and periodic credit evaluations on customers and adjusts credit limits based upon payment history and the customer's current creditworthiness. The allowance for credit losses is determined by evaluating individual customer receivables, based on contractual terms, reviewing the financial condition of customers, and from the historical experience of write-offs. Receivable losses are charged against the allowance when management believes the account has become uncollectible.

Subsequent recoveries, if any, are credited to the allowance. As of June 30, 2023 and December 31, 2022, Printronix's combined allowance for credit losses and allowance for sales returns was \$38,000 and \$22,000, respectively.

Long-Term Notes Receivable

On October 13, 2021, Adaptix Limited issued £2.95 million, approximately \$4.0 million at the exchange rate on October 13, 2021, in limited unsecured notes due in 2026 to Radcliffe 2 Ltd., a subsidiary of Merton Healthcare Holdco II LLC. Such unsecured notes were subsequently transferred to Merton Acquisition HoldCo LLC, a Delaware limited liability company and wholly owned subsidiary of the Company ("Merton") in the first quarter of 2023. The interest rate on the notes is 8.0% per year. We recorded \$75,000 and \$73,000 during the three months ended June 30, 2023 and 2022, respectively, in interest income related to the notes and \$146,000 and \$151,000, during the six months ended June 30, 2023 and 2022, respectively, in interest income related to the notes. As of June 30, 2023 and December 31, 2022, the receivable including interest was \$4.3 million and \$3.9 million, respectively, and is included in other non-current assets in the consolidated balance sheets.

Goodwill and Other Intangible Assets

Goodwill represents the excess of the acquisition price of a business over the fair value of identified net assets of that business. We evaluate goodwill for impairment annually in the fourth quarter and on an interim basis if the facts and circumstances lead us to believe that more-likely-than-not there has been an impairment. When evaluating goodwill for impairment, we estimate the fair value of the reporting unit. Several methods may be used to estimate a reporting unit's fair value, including, but not limited to, discounted projected future net earnings or net cash flows and multiples of earnings. If the carrying amount of a reporting unit, including goodwill, exceeds the estimated fair value, then the excess is charged to earnings as an impairment loss. Refer to Note 6 for additional information.

ARG's patents include the cost of patents or patent rights acquired from third-parties or obtained in connection with business combinations. ARG's patent costs are amortized utilizing the straight-line method over their estimated useful lives, ranging from five to ten years. Refer to Note 6 for additional information.

Printronix's intangible assets consist of trade names and trademarks, patents and customer and distributor relationships. These definite-lived intangible assets, at the time of acquisition, are recorded at fair value and are stated net of accumulated amortization. Printronix currently amortizes the definite-lived intangible assets on a straight-line basis over their estimated useful lives of seven years. Refer to Note 6 for additional information.

Leases

The Company's leases primarily consist of facility leases which are classified as operating leases. The Company assesses whether an arrangement contains a lease at inception. The Company recognizes a lease liability to make contractual payments under all leases with terms greater than twelve months and a corresponding right-of-use asset, representing its right to use the underlying asset for the lease term. Lease expense is recognized on a straight-line basis over the lease term. Refer to Note 11 for additional information.

Impairment of Long-lived Assets

The Company reviews long-lived assets, patents and other intangible assets for potential impairment annually and when events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. In the event the expected undiscounted future cash flows resulting from the use of the asset is less than the carrying amount of the asset, an impairment loss is recorded in an amount equal to the excess of the asset's carrying value over its fair value. If an asset is determined to be impaired, the loss is measured based on quoted market prices in active markets, if available. If quoted market prices are not available, the estimate of fair value is based on various valuation techniques, including a discounted value of estimated future cash flows.

In the event that management decides to no longer allocate resources to a patent portfolio, an impairment loss equal to the remaining carrying value of the asset is recorded. Fair value is generally estimated using the "Income Approach," focusing on the estimated future net income-producing capability of the patent portfolios over their estimated remaining economic useful life. Estimates of future after-tax cash flows are converted to present value through "discounting," including an estimated rate of return that accounts for both the time value of money and investment risk factors. Estimated cash inflows are typically based on estimates of reasonable royalty rates for the applicable technology, applied to estimated market data.

Estimated cash outflows are based on existing contractual obligations, such as contingent legal fee and inventor royalty obligations, applied to estimated license fee revenues, in addition to other estimates of out-of-pocket expenses associated with a specific patent portfolio's licensing and enforcement program. The analysis also contemplates consideration of current information about the patent portfolio including, status and stage of litigation, periodic results of the litigation process, strength of the patent portfolio, technology coverage and other pertinent information that could impact future net cash flows. Refer to Note 6 for additional information.

Treasury Stock

Repurchases of the Company's outstanding common stock are accounted for using the cost method. The applicable par value is deducted from the appropriate capital stock account on the formal or constructive retirement of treasury stock. Any excess of the cost of treasury stock over its par value is charged to additional paid-in capital and reflected as treasury stock in the consolidated balance sheets. Refer to Note 12 for additional information.

Engineering and Development

Engineering and development costs are expensed as incurred and consist of labor, supplies, consulting and other costs related to developing and improving Printronix's products.

Stock-Based Compensation

The compensation cost for all time-based stock-based awards is measured at the grant date, based on the fair value of the award, and is recognized as an expense on a straight-line basis over the employee's requisite service period (generally the vesting period of the equity award) which is currently one to four years. Compensation cost for an award with a performance condition shall be based on the probable outcome of that performance condition. Compensation cost shall be accrued if it is probable that the performance condition will be achieved and shall not be accrued if it is not probable that the performance condition will be achieved. The fair value of restricted stock awards ("RSAs"), restricted stock units ("RSUs") and performance based stock awards ("PSUs") are determined by the product of the number of shares or units granted and the grant date market price of the underlying common stock. The fair value of each option award is estimated on the date of grant using a Black-Scholes option-pricing model. Forfeitures are accounted for as they occur. Refer to Note 13 for additional information.

Foreign Currency Gains and Losses

In connection with our Printronix business, the U.S. dollar is the functional currency for all of the foreign subsidiaries. Transactions that are recorded in currencies other than the U.S. dollar may result in transaction gains or losses at the end of the reporting period and when trade receipts and payments occur. For these subsidiaries, the assets and liabilities have been re-measured at the end of the period for changes in exchange rates, except inventories and property, plant and equipment, which have been remeasured at historical average rates. The consolidated statements of operations have been reevaluated at average rates of exchange for the reporting period, except cost of sales and depreciation, which have been reevaluated at historical rates. Although Acacia historically has not had material foreign operations, Acacia is exposed to fluctuations in foreign currency exchange rates between the U.S. dollar, and the British Pound and Euro currency exchange rates, primarily related to foreign cash accounts, a note receivable and certain equity security investments. All foreign currency exchange activity is recorded in the consolidated statements of operations.

Income Taxes

Income taxes are accounted for using an asset and liability approach that requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in Acacia's consolidated financial statements or consolidated income tax returns. A valuation allowance is established to reduce deferred tax assets if all, or some portion, of such assets will more than likely not be realized, or if it is determined that there is uncertainty regarding future realization of such assets. When the Company establishes or reduces the valuation allowance against its deferred tax assets, the provision for income taxes will increase or decrease, respectively, in the period such determination is made.

Under U.S. GAAP, a tax position is a position in a previously filed tax return or a position expected to be taken in a future tax filing that is reflected in measuring current or deferred income tax assets and liabilities. Tax positions are recognized only when it is more likely than not (likelihood of greater than 50%), based on technical merits, that the position will be sustained upon examination. Tax positions that meet the more likely than not threshold are measured using a probability weighted approach as the largest amount of tax benefit that is greater than 50% likely of being realized upon settlement.

The provision for income taxes for interim periods is determined using an estimate of Acacia's annual effective rate, adjusted for discrete items, if any, that are taken into account in the relevant period. Each quarter, Acacia updates the estimate of the annual effective tax rate, and if the estimated tax rate changes, a cumulative adjustment is recorded.

Our income tax benefit for the three months ended June 30, 2023 is primarily attributable to recognizing an income tax benefit on losses incurred in jurisdictions for which a valuation allowance is not needed. Our income tax expense for the six months ended June 30, 2023 is primarily attributable to foreign taxes withheld and state income taxes. Our income tax expense for the three and six months ended June 30, 2022 is primarily comprised of the impact of a partial valuation allowance recorded against our net deferred tax assets.

The Company's effective tax rates were (8)% and zero for the three months ended June 30, 2023 and 2022, respectively. The Company's effective tax rates were 10% and (11)% for the six months ended June 30, 2023 and 2022, respectively. Our 2023 effective tax rate in each period was lower than the U.S. federal statutory rate primarily due to expiration of foreign tax credits, changes in valuation allowance, as well as non-deductible items. Our 2022 effective tax rate in each period was lower than the U.S. federal statutory rate primarily due to the change in valuation allowance and non-deductible items. The effective tax rate may be subject to fluctuations during the year as new information is obtained which may affect the assumptions used to estimate the effective tax rate, including factors such as expected utilization of net operating loss carryforwards, changes in or the interpretation of tax laws in jurisdictions where the Company conducts business, the Company's expansion into new states or foreign countries, and the amount of valuation allowances against deferred tax assets. The Company has recorded a partial valuation allowance against our net deferred tax assets as of June 30, 2023 and December 31, 2022. These assets primarily consist of foreign tax credits and net operating loss carryforwards.

At June 30, 2023 and December 31, 2022, the Company had total unrecognized tax benefits of approximately \$ 760,000. At June 30, 2023 and December 31, 2022, \$760,000 of unrecognized tax benefits were recorded in other long-term liabilities. No interest and penalties have been recorded for the unrecognized tax benefits for the periods presented. At June 30, 2023, if recognized, \$760,000 of tax benefits would impact the Company's effective tax rate subject to valuation allowance. The Company does not expect that the liability for unrecognized benefits will change significantly within the next 12 months. Acacia recognizes interest and penalties with respect to unrecognized tax benefits in income tax expense (benefit). Acacia has identified no uncertain tax position for which it is reasonably possible that the total amount of unrecognized tax benefits will significantly increase or decrease within 12 months.

Recent Accounting Pronouncements

Recently Adopted

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments," to replace the incurred loss methodology with an expected credit loss model that requires consideration of a broader range of information to estimate credit losses over the lifetime of the asset, including current conditions and reasonable and supportable forecasts in addition to historical loss information, to determine expected credit losses. Pooling of assets with similar risk characteristics and the use of a loss model are also required. Also, in April 2019, the FASB issued ASU No. 2019-04, "Codification Improvements to Topic 326, Financial Instruments—Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments," to clarify the inclusion of recoveries of trade receivables previously written off when estimating an allowance for credit losses. The Company adopted the update on January 1, 2023. The adoption of the update did not have an impact on the Company's financial position, results of operations or financial statement disclosures.

In October 2021, the FASB issued ASU No. 2021-08, "Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers," to require that an acquirer recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with "Revenue from Contracts with Customers (Topic 606)." At the acquisition date, an acquirer should account for the related revenue contracts in accordance with Topic 606 as if it had originated the contracts. The Company adopted the update on January 1, 2023. The adoption of the update did not have an impact on the Company's financial position, results of operations or financial statement disclosures.

Not Yet Adopted

In August 2020, the FASB issued ASU No. 2020-06, "Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible

Instruments and Contracts in an Entity's Own Equity," to simplify the accounting for convertible instruments by eliminating large sections of the existing guidance in this area. It also eliminates several triggers for derivative accounting, including a requirement to settle certain contracts by delivering registered shares. This update reduces the number of accounting models for convertible instruments, revises the derivatives scope exception, and provides targeted improvements for earnings per share. Upon adoption, companies have the option to apply a modified or full retrospective transition approach. The amendments in this update will currently be effective for the Company on January 1, 2024, with early adoption permitted. Management is currently evaluating the impact that the amendments in this update may have on the Company's consolidated financial statements.

3. EQUITY SECURITIES

Equity securities for the periods presented were comprised of the following:

Security Type	Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
(In thousands)				
June 30, 2023:				
Equity securities - Life Sciences Portfolio	\$ 28,498	\$ 14,354	\$ (666)	\$ 42,186
Equity securities - other common stock	16,172	1,287	(6,792)	10,667
Total	<u>\$ 44,670</u>	<u>\$ 15,641</u>	<u>\$ (7,458)</u>	<u>\$ 52,853</u>
December 31, 2022:				
Equity securities - Life Sciences Portfolio	\$ 28,498	\$ 14,815	\$ (617)	\$ 42,696
Equity securities - other common stock	34,885	4	(15,977)	18,912
Total	<u>\$ 63,383</u>	<u>\$ 14,819</u>	<u>\$ (16,594)</u>	<u>\$ 61,608</u>

Equity Securities Portfolio Investment

On April 3, 2020, the Company entered into an Option Agreement with LF Equity Income Fund, which included general terms through which the Company was provided the option to purchase the Life Sciences Portfolio for an aggregate purchase price of £223.9 million, approximately \$277.5 million at the exchange rate on April 3, 2020.

For accounting purposes, the total purchase price of the Life Sciences Portfolio was allocated to the individual equity securities based on their individual fair values as of April 3, 2020, in order to establish an appropriate cost basis for each of the acquired securities. The fair values of the public company securities were based on their quoted market price. The fair values of the private company securities were estimated based on recent financing transactions and secondary market transactions and factoring in a discount for the illiquidity of these securities. Included in our consolidated balance sheets as of June 30, 2023 and December 31, 2022, the total fair value of the remaining Life Sciences Portfolio investment was \$67.9 million and \$68.4 million, respectively.

As part of the Company's acquisition of equity securities in the Life Sciences Portfolio, the Company acquired an equity interest in Arix Bioscience PLC ("Arix"), a public company listed on the London Stock Exchange. As of June 30, 2023 and December 31, 2022, the Company's investment in Arix was approximately 26%. In addition, two members of the Company's Board of Directors (the "Board") have seats on the board of Arix, which is currently made up of six board members. Although the Company is presumed to have significant influence over operating and financial policies of Arix, we have elected to account for the investment under the fair value method. To date, the Company has not received any dividends from Arix. As of June 30, 2023, this investment does not meet the significance thresholds for additional summarized income statement disclosures, as defined by the SEC. As of June 30, 2023, the aggregate carrying amount of our Arix investment was \$42.2 million, and is included in equity securities in the consolidated balance sheet.

The following unrealized and realized gains or losses from our investment in the Life Sciences Portfolio are recorded in the change in fair value of equity securities and gain or loss on sale of equity securities, respectively, in the consolidated statements of operations:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
(In thousands)				
Change in fair value of equity securities of public companies	\$ (1,087)	\$ (32,458)	\$ (510)	\$ (204,098)
Gain on sale of equity securities of public companies	—	5,217	—	64,705
Net realized and unrealized gain (loss)	<u>\$ (1,087)</u>	<u>\$ (27,241)</u>	<u>\$ (510)</u>	<u>\$ (139,393)</u>

As part of the Company's acquisition of equity securities in the Life Sciences Portfolio, the Company acquired a majority interest in the equity securities of MalinJ1 (63.9%), which were transferred to the Company on December 3, 2020. The acquisition of the MalinJ1 securities was accounted for as an asset acquisition as there was a change of control of MalinJ1 and substantially all of the fair value of the assets acquired was concentrated in a single identifiable asset, an investment in Viamet Pharmaceuticals Holdings, LLC ("Viamet"). As such, the cost basis of the MalinJ1 securities was used to allocate to the Viamet investment, the single identifiable asset, and no goodwill was recognized. The Company through its consolidation of MalinJ1 accounts for the Viamet investment under the equity method as MalinJ1 owns 41.0% of outstanding shares of Viamet. As of June 30, 2023, this investment does not meet the significance thresholds for additional summarized income statement disclosures, as defined by the SEC. During the six months ended June 30, 2023 and 2022, our consolidated earnings on equity investment was zero and \$42.1 million, respectively, included in the consolidated statements of operations. No distributions were received during the six months ended June 30, 2023 and 2022.

4. INVENTORIES

Printronic's inventories consisted of the following:

	June 30, 2023	December 31, 2022
(In thousands)		
Raw materials	\$ 4,562	\$ 4,335
Subassemblies and work in process	2,642	3,045
Finished goods	7,237	7,340
	14,441	14,720
Inventory reserves	(435)	(498)
Total inventories	<u>\$ 14,006</u>	<u>\$ 14,222</u>

5. PROPERTY, PLANT AND EQUIPMENT, NET

Property, plant and equipment, net consisted of the following:

	June 30, 2023	December 31, 2022
	(In thousands)	
Machinery and equipment	\$ 3,190	\$ 3,057
Furniture and fixtures	583	585
Computer hardware and software	627	660
Leasehold improvements	1,018	1,025
	5,418	5,327
Accumulated depreciation and amortization	(2,468)	(1,790)
Property, plant and equipment, net	\$ 2,950	\$ 3,537

Total depreciation and amortization expense in the consolidated statements of operations was \$ 374,000 and \$375,000 for the three months ended June 30, 2023 and 2022, respectively, and \$721,000 and \$710,000 for the six months ended June 30, 2023 and 2022, respectively. Our Intellectual Property Operations and parent company include depreciation and amortization in general and administrative expenses. For the three months ended June 30, 2023 and 2022, our Industrial Operations allocated depreciation and amortization, totaling \$341,000 and \$348,000, respectively, to all applicable operating expense categories, including cost of sales of \$106,000 and \$140,000, respectively. For the six months ended June 30, 2023 and 2022, our Industrial Operations allocated depreciation and amortization, totaling \$654,000 and \$656,000, respectively, to all applicable operating expense categories, including cost of sales of \$216,000 and \$248,000, respectively.

6. GOODWILL AND OTHER INTANGIBLE ASSETS, NET

Changes in the carrying amount of goodwill consisted of the following:

	June 30, 2023	December 31, 2022
	(In thousands)	
Beginning balance	\$ 7,541	\$ 7,470
Acquisition of business	—	—
Tax adjustment	—	71
Impairment losses	—	—
Ending balance	\$ 7,541	\$ 7,541

The ending balance of goodwill includes no accumulated impairment losses to date. All goodwill is allocated to our Industrial Operations segment, refer to Note 1 for additional information related to the Printronix acquisition.

Other intangible assets, net consisted of the following:

June 30, 2023				
	Weighted Average Amortization Period	Gross Carrying Amount	Accumulated Amortization	Net Book Value
(In thousands)				
Patents:				
Intellectual property operations	6 years	\$ 331,403	\$ (309,945)	\$ 21,458
Industrial operations	7 years	3,400	(840)	2,560
Total patents		334,803	(310,785)	24,018
Customer relationships - industrial operations	7 years	5,300	(1,310)	3,990
Trade name and trademarks - industrial operations	7 years	3,430	(848)	2,582
Total		\$ 343,533	\$ (312,943)	\$ 30,590

December 31, 2022				
	Weighted Average Amortization Period	Gross Carrying Amount	Accumulated Amortization	Net Book Value
(In thousands)				
Patents:				
Intellectual property operations	6 years	\$ 331,403	\$ (304,744)	\$ 26,659
Industrial operations	7 years	3,400	(597)	2,803
Total patents		334,803	(305,341)	29,462
Customer relationships - industrial operations	7 years	5,300	(931)	4,369
Trade name and trademarks - industrial operations	7 years	3,430	(603)	2,827
Total		\$ 343,533	\$ (306,875)	\$ 36,658

Total other intangible asset amortization expense in the consolidated statements of operations was \$ 3.0 million for the three months ended June 30, 2023 and 2022, respectively, and \$6.1 million for the six months ended June 30, 2023 and 2022, respectively. The Company did not record charges related to impairment of other intangible assets for the six months ended June 30, 2023 and 2022. There was no accelerated amortization of other intangible assets for the six months ended June 30, 2023 and 2022. Intellectual Property Operations amortization of patents is expensed in cost of revenues and Industrial Operations amortization is expensed in general and administrative expenses.

The following table presents the scheduled annual aggregate amortization expense (in thousands):

Years Ending December 31,	
Remainder of 2023	\$ 6,001
2024	10,692
2025	8,347
2026	2,483
2027	1,733
Thereafter	1,334
Total	\$ 30,590

During the year ended December 31, 2022, ARG entered into an agreement granting ARG the exclusive option to acquire all rights to license and enforce a patent portfolio and all future patents and patent applications, and incurred \$15.0 million of certain patent and patent rights costs. As of June 30, 2023 and December 31, 2022 zero and \$9.0 million was accrued, respectively and included in accrued expenses and other current liabilities (see Note 7). Three installments of \$3.0 million

were paid in February, April, and June 2023. The patent costs are included in prepaid expenses and other current assets in the consolidated balance sheet as of June 30, 2023.

7. ACCRUED EXPENSES AND OTHER CURRENT LIABILITIES

Accrued expenses and other current liabilities consisted of the following:

	June 30, 2023	December 31, 2022
	(In thousands)	
Accrued consulting and other professional fees	\$ 958	\$ 1,173
Income taxes payable	944	474
Product warranty liability, current	29	36
Service contract costs, current	268	280
Short-term lease liability	1,330	1,559
Accrued patent cost (see Note 6)	—	9,000
Other accrued liabilities	932	1,536
Total	<u>\$ 4,461</u>	<u>\$ 14,058</u>

8. STARBOARD INVESTMENT

In order to establish a strategic and ongoing relationship between the Company and Starboard, on November 18, 2019, the Company and Starboard entered into a Securities Purchase Agreement (the "Securities Purchase Agreement"), pursuant to which Starboard acquired (i) 350,000 shares of Series A Redeemable Convertible Preferred Stock with a stated value of \$100 per share, (ii) Series A Warrants to purchase up to 5,000,000 shares of common stock (the "Series A Warrants") and (iii) Series B Warrants to purchase up to 100,000,000 shares of common stock.

On November 12, 2021, the Board formed a Special Committee comprised of directors not affiliated or associated with Starboard in order to explore the possibility of simplifying the Company's capital structure. Management of the Company believed that the Company's capital structure, with multiple different series of securities, made it difficult for investors to understand and value the Company and created an impediment to new public investment.

As a result, on October 30, 2022, and following the unanimous recommendation of the Special Committee of the Board, the Company entered into the Recapitalization Agreement with Starboard and the Investors in order to simplify the Company's capital structure, pursuant to which, among other things, (1) effective as of November 1, 2022, the Investors exercised the Series A Warrants in full and received 5,000,000 shares of the Company's common stock, (2) the Investors purchased 15,000,000 shares of the Company's common stock pursuant to the Concurrent Private Rights Offering (as defined below) and the Unadjusted Series B Warrants (as defined below) were cancelled, and (3) on July 13, 2023, (a) Starboard converted 350,000 shares of Series A Redeemable Convertible Preferred Stock into 9,616,746 shares of the Company's common stock, and (b) Starboard exercised 31,506,849 of the Series B Warrants through a combination of a "Note Cancellation" and a "Limited Cash Exercise" (each as defined in the Series B Warrants), resulting in the receipt by Starboard of 31,506,849 shares of common stock, the cancellation of \$ 60.0 million aggregate principal amount of the Company's senior secured notes held by Starboard (as described further below, the "Senior Secured Notes") and the receipt by the Company of aggregate gross proceeds of approximately \$55.0 million. As a result, Starboard holds 61,123,595 shares of common stock, representing approximately 61.2% of the common stock based on 99,886,322 shares of common stock issued and outstanding as of July 13, 2023. Accordingly, no shares of Series A Redeemable Convertible Preferred Stock, no Series B Warrants, nor any Senior Secured Notes remain outstanding.

As applicable, the following discussion of Starboard's investments in the Company reflect the transactions effected pursuant to the Recapitalization Agreement.

Series A Redeemable Convertible Preferred Stock

Per its terms, the Series A Redeemable Convertible Preferred Stock could be converted into a number of shares of common stock equal to (i) the stated value thereof plus accrued and unpaid dividends, divided by (ii) the conversion price of \$3.65

(subject to certain anti-dilution adjustments) and holders of the Series A Redeemable Convertible Preferred Stock could elect to convert the Series A Redeemable Convertible Preferred Stock into common stock at any time.

Further, the Series A Redeemable Convertible Preferred Stock accrued cumulative dividends quarterly at annual rate of 3.0% on the stated value. In connection with an approved investment in June 2020, the Company and the Investors agreed that the dividend rate on the Series A Redeemable Convertible Preferred Stock would accrue at 3.0% so long as no triggering event occurred and the Company maintained \$ 35.0 million in escrow. Series A Redeemable Convertible Preferred Stock also could participate on an as-converted basis in any regular or special dividends paid to common stockholders. Upon consummation of the Printronix acquisition in October 2021, \$35.0 million was released to the Company from escrow and the dividend rate increased to 8.0% on the stated value. There were no accrued and unpaid dividends as of June 30, 2023 and December 31, 2022.

Under the Recapitalization Agreement, the Company and Starboard agreed to take certain actions related to the Series A Preferred Stock in connection with the Recapitalization, including submitting a proposal for stockholder approval to remove the "4.89% blocker" provision contained in the Company's Amended and Restated Certificate of Designations (the "Amendment to the Amended and Restated Certificate of Designations"). The Company's stockholders approved the Amendment to the Amended and Restated Certificate of Designations at the Company's annual meeting of stockholders held on May 16, 2023 which became effective on June 30, 2023. Subsequently, and in accordance with the terms of the Series A Redeemable Convertible Preferred Stock, as amended, and the Recapitalization Agreement, on July 13, 2023, Starboard converted an aggregate amount of 350,000 shares of Series A Redeemable Convertible Preferred Stock into 9,616,746 shares of common stock, which included 27,704 shares of common stock issued in respect of accrued and unpaid dividends.

The Company determined that certain features of the Series A Redeemable Convertible Preferred Stock should be bifurcated and accounted for as a derivative. Each of these features were bundled together as a single, compound embedded derivative.

During 2019, total proceeds received and transaction costs incurred from the issuance of the Series A Redeemable Convertible Preferred Stock amounted to \$35.0 million and \$1.3 million, respectively. Proceeds received were allocated based on the fair value of the instrument without the Series A Warrants and of the Series A Warrants themselves at the time of issuance. The proceeds allocated to the Series A Redeemable Convertible Preferred Stock were then further allocated between the host preferred stock instrument and the embedded derivative, with the embedded derivative recorded at fair value and the Series A Redeemable Convertible Preferred Stock recorded at the residual amount. The portion of the proceeds allocated to the Series A Warrants, embedded derivative, and Series A Redeemable Convertible Preferred Stock was \$4.8 million, \$21.2 million, and \$8.9 million, respectively. Transaction costs were also allocated between the Series A Redeemable Convertible Preferred Stock and the Series A Warrants on the same basis as the proceeds. The transaction costs allocated to the Series A Redeemable Convertible Preferred Stock were treated as a discount to the Series A Redeemable Convertible Preferred Stock. The transaction costs allocated to the Series A Warrants were expensed as incurred.

The Company classified the Series A Redeemable Convertible Preferred Stock as mezzanine equity as the instrument would become redeemable at the option of the holder in various scenarios or otherwise on November 15, 2027. As it was probable that the Series A Redeemable Convertible Preferred Stock would become redeemable, the Company accreted the instrument to its redemption value using the effective interest method and recognized any changes against additional paid in capital in the absence of retained earnings. The Company determined that upon entering into the Recapitalization Agreement, the Series A Redeemable Convertible Preferred Stock was not modified related to the redemption, as such action was subject to the receipt of stockholder approval at the Company's next annual meeting of stockholders. Accordingly, the Series A Redeemable Convertible Preferred Stock continued to be classified as temporary equity and continued to be accreted to its redemption value to the earliest redemption date of November 15, 2024. Accretion for the three months ended June 30, 2023 and 2022 was \$1.7 million and \$1.2 million, respectively, and for the six months ended June 30, 2023 and 2022 was \$3.2 million and \$2.4 million, respectively.

The following features of the Series A Redeemable Convertible Preferred Stock are required to be bifurcated from the host preferred stock and accounted for separately as an embedded derivative: (i) the right of the holders to redeem the shares (the "put option"), (ii) the right of the holders to receive common stock upon conversion of the shares (the "conversion option"), (iii) the right of the Company to redeem the shares (the "call option"), and (iv) the change in dividend rate upon consummation of an approved investment or a triggering event (the "contingent dividend rate feature").

These features are required to be accounted for separately from the Series A Redeemable Convertible Preferred Stock because the features were determined to be not clearly and closely related to the debt-like host and also did not meet any other scope exceptions for derivative accounting. Therefore, these features are bundled together and are accounted for as a single, compound embedded derivative liability.

Accordingly, we have recorded an embedded derivative liability representing the combined fair value of each of these features. The embedded derivative liability is adjusted to reflect fair value at each period end with changes in fair value recorded as other income or (expense) in the "Change in fair value of the Series A and B warrants and embedded derivatives" financial statement line item of the consolidated statements of operations. In connection with the Recapitalization Agreement, the Company determined that the embedded features would continue to be bifurcated from the host Series A Redeemable Convertible Preferred Stock and accounted for separately as a compound derivative. As of June 30, 2023 and December 31, 2022, the fair value of the Series A embedded derivative was \$12.9 million and \$16.8 million, respectively.

Series A Warrants

On November 18, 2019, in connection with the issuance of the Series A Redeemable Convertible Preferred Stock, the Company issued detachable Series A Warrants to acquire up to 5,000,000 shares of common stock at a price of \$ 3.65 per share (subject to certain anti-dilution adjustments) at any time during a period of eight years beginning on the instrument's issuance date of the Series A Warrants. The fair value of the Series A Warrants was \$4.8 million upon issuance. On November 1, 2022, the Series A Warrants were fully exercised, and the Company recognized the common stock issued at its fair value in equity and an approximate \$2.0 million charge as a component of the change in fair value of the Series A Warrants in other expense, which resulted in a fair value of zero.

In accordance with the terms of the Recapitalization Agreement, effective as of November 1, 2022, the Investors consummated the Series A Warrants Exercise (exercising the Series A Warrants in full) and the Company issued an aggregate of 5,000,000 shares of the Company's common stock to the Investors in consideration of their payment of the cash exercise price of \$9.3 million, which amount represents a reduction in the exercise price to account for a negotiated settlement by the parties to account for the forgone time value of money of the Series A Warrants.

Series B Warrants

On February 25, 2020, pursuant to the terms of the Securities Purchase Agreement with Starboard and the Investors, the Company issued Series B Warrants to purchase up to 100,000,000 shares of the Company's common stock at an exercise price (subject to certain price-based anti-dilution adjustments) of either (i) \$5.25 per share, if exercising by cash payment, within 30 months from the issuance date (i.e., August 25, 2022); or (ii) \$ 3.65 per share, if exercising by cancellation of a portion of the Notes (as defined below). The Company issued the Series B Warrants for an aggregate purchase price of \$4.6 million. The Series B Warrants had an expiration date of November 15, 2027.

In connection with the issuance of the Notes on June 4, 2020, the terms of certain of the Series B Warrants were amended to permit the payment of the lower exercise price of \$3.65 through the payment of cash, rather than only through the cancellation of Notes outstanding, at any time until the expiration date of November 15, 2027. 31,506,849 of the Series B Warrants were subject to this adjustment with the remaining balance of 68,493,151 Series B Warrants continuing under their original terms (the Series B Warrants not subject to such adjustment, the "Unadjusted Series B Warrants").

During the third quarter of 2022, the cash exercise feature of the Unadjusted Series B Warrants expiration date of August 25, 2022 was extended to October 28, 2022. On October 28, 2022, the cash exercise feature of the Unadjusted Series B Warrants expired, which resulted in a fair value of zero for the related 68,493,151 warrants. In March 2023, the Unadjusted Series B Warrants were cancelled immediately following the completion of the Rights Offering (as described below). As of June 30, 2023, the remaining 31,506,849 Series B Warrants had not been exercised.

As stated in Note 1 above, further to the terms of the Recapitalization Agreement and in accordance with the terms of the Series B Warrants, on July 13, 2023, Starboard completed the Series B Warrants Exercise. Pursuant to the Series B Warrants Exercise, the Company cancelled \$60.0 million aggregate principal amount of Senior Secured Notes held by Starboard and received aggregate gross proceeds of approximately \$55.0 million. At the closing of the Series B Warrants Exercise, the Company paid to Starboard an aggregate amount of \$66.0 million (the "Recapitalization Payment") representing a negotiated settlement of the foregone time value of the Series B Warrants and the Series A Redeemable Convertible Preferred Stock (which amount was paid through a reduction in the exercise price of the Series B Warrants).

The Recapitalization Payment effectively modified the exercise price of the Series B Warrants. Upon the Series B Warrants Exercise, the Investors exercised the Series B Warrants at a reduced price and the Company issued an aggregate of 31,506,849 shares of the Company's common stock to the Investors in consideration of their cash payment and cancellation of any outstanding Senior Secured Notes.

The Series B Warrants are classified as a liability in accordance with ASC 480, "Distinguishing Liabilities from Equity", as the agreement provides for net cash settlement upon a change in control, which is outside the control of the Company. In connection with the Recapitalization Agreement and related warrant modification, the Company recognized the incremental fair value as a component of the change in fair value of the Series B Warrants in other expense as of December 31, 2022.

The Series B Warrants will be recognized at fair value at each reporting period until exercised or expiration, with changes in fair value recognized in other income or (expense) in the consolidated statements of operations. As of June 30, 2023 and December 31, 2022, the total fair value of the Series B Warrants was \$82.0 million and \$84.8 million, respectively.

Senior Secured Notes

On June 4, 2020, pursuant to the Securities Purchase Agreement dated November 18, 2019 with Starboard and the Investors, the Company issued \$115.0 million in senior secured notes (the "Notes") to the Investors. Also on June 4, 2020, in connection with the issuance of the Notes, the Company entered into a Supplemental Agreement with Starboard (the "Supplemental Agreement"), as discussed further below.

On June 30, 2020, the Company entered into an Exchange Agreement (the "Exchange Agreement") with Merton and Starboard, on behalf of itself and on behalf of certain funds and accounts under its management, including the holders of the Notes. Pursuant to the Exchange Agreement, the holders of the Notes exchanged the entire outstanding principal amount for new senior notes (the "New Notes") issued by Merton having an aggregate outstanding original principal amount of \$115.0 million.

The New Notes bore interest at a rate of 6.00% per annum and had an initial maturity date of December 31, 2020. The New Notes were fully guaranteed by the Company and were secured by an all-assets pledge of the Company and Merton and non-recourse equity pledges of each of the Company's material subsidiaries. Pursuant to the Exchange Agreement, the New Notes (i) were deemed to be "Notes" for purposes of the Securities Purchase Agreement, (ii) were deemed to be "June 2020 Approved Investment Notes" for purposes of the Supplemental Agreement, and with the Company agreeing to redeem \$80.0 million principal amount of the New Notes by September 30, 2020 and \$ 35.0 million principal amount of the New Notes by December 31, 2020, and (iii) were deemed to be "Notes" for the purposes of the Series B Warrants, and therefore could be tendered pursuant to a Note Cancellation under the Series B Warrants on the terms set forth in the Series B Warrants and the New Notes. Delivery of notes in the form of the New Notes could also satisfy the delivery of "Exchange Notes" pursuant to Section 16(i) of the Certificate of Designations of the Company's Series A Convertible Preferred Stock, par value \$0.001 per share (the "Certificate of Designations"). The New Notes would not be deemed to be "Notes" for the purposes of the Registration Rights Agreement, dated as of November 18, 2019, by and among the Company, Starboard and the Investors.

Because the New Notes, as amended (as described below), were to be settled within twelve months pursuant to their terms, they are classified as current liabilities in the consolidated balance sheets. The Company capitalized \$4.6 million in lender fees associated with the issuance of the Notes and amortized such fees over the approximate seven month period ended December 31, 2020, which was the initial redemption date of the Notes. There was \$450,000 of accrued and unpaid interest on the New Notes as of June 30, 2023 and December 31, 2022.

On January 29, 2021, the Company redeemed \$50.0 million of the New Notes and on March 31, 2021, the Company reissued \$ 50.0 million of the New Notes. On June 30, 2021, the Company issued \$30.0 million in additional New Notes (the "June 2021 Merton Notes") and amended the maturity date of the New Notes to October 15, 2021. On September 30, 2021, the Company issued \$35.0 million in additional New Notes (the "September 2021 Merton Notes") and amended the maturity date of the New Notes to December 1, 2021. The June 2021 Merton Notes and the September 2021 Merton Notes cannot be used to exercise Series B Warrants issued to Starboard. On November 30, 2021, the Company amended the maturity date of the New Notes to January 31, 2022. On January 31, 2022, the Company amended the maturity date of the New Notes to April 15, 2022, and agreed to repay an aggregate of \$15.0 million principal amount of the New Notes, resulting in a principal amount outstanding of \$ 165.0 million. On April 14, 2022, the Company amended the New Notes to extend the maturity date to July 15, 2022, permit the investment in certain types of derivative instruments and permit

certain guarantees in connection with such derivative instruments, each as defined therein, and agreed to repay an aggregate of \$ 50.0 million principal amount of the New Notes, resulting in a principal amount outstanding of \$115.0 million. On July 15, 2022, the Company amended the maturity date of the New Notes to July 14, 2023, and agreed to repay an aggregate of \$55.0 million principal amount of the New Notes, resulting in a principal amount outstanding of \$60.0 million (such remaining New Notes also referred to as the Senior Secured Notes). The total principal amount outstanding of Senior Secured Notes as of June 30, 2023 and December 31, 2022 was \$60.0 million. On July 13, 2023 pursuant to the Series B Warrants Exercise, the Company cancelled the remaining \$60.0 million aggregate principal amount outstanding of the Senior Secured Notes.

Modifications to Series A Redeemable Convertible Preferred Stock and Series B Warrants

The June 4, 2020 Supplemental Agreement also provided for (i) a waiver of increased dividends under the original terms of the Series A Redeemable Convertible Preferred Stock that would have otherwise accrued due to the Company's use of the \$35.0 million proceeds received from Starboard and the Investors upon the issuance of the Series A Redeemable Convertible Preferred Stock in November 2019, (ii) the replacement of original optional redemption rights for the Series A Redeemable Convertible Preferred Stock provided to both the Company and the holders that otherwise would have been nullified through the issuance of the Notes, and (iii) an amendment to the terms of the previously issued Series B Warrants to permit the payment of the lower exercise price of \$3.65 through the payment of cash, rather than only through the cancellation of Notes outstanding, at any time until the expiration of the Series B Warrants on November 15, 2027. 31,506,849 of the Series B Warrants are subject to this adjustment with the remaining balance of 68,493,151 Series B Warrants continuing under their original terms.

We analyzed the amendments to the Series A Redeemable Convertible Preferred Stock and determined that the amendments were not significant. Therefore, the amendments are accounted for as a modification on a prospective basis.

The incremental fair value of the Series B Warrants associated with the modification of their terms in connection with the issuance of the Notes was \$1.3 million and is recognized as a discount on the Notes and will be amortized to interest expense over the contractual life of the Notes. For the three and six months ended June 30, 2023, no amount was amortized to interest expense as the discount was fully amortized during the quarter ended September 30, 2022. For the three and six months ended June 30, 2022, \$5,000 and \$56,000, respectively, was amortized to interest expense.

Rights Offering and Concurrent Private Rights Offering

On February 14, 2023, pursuant to the requirements of the Recapitalization Agreement and in accordance with the terms of the Series B Warrants, the Company commenced a rights offering (the "Rights Offering"). Under the terms of the Rights Offering, the Company distributed non-transferable subscription rights to record holders ("Eligible Securityholders") of the Company's common stock held as of 5 p.m. Eastern time on February 13, 2023, the record date for the Rights Offering. The subscription period for the Rights Offering terminated at 5 p.m. Eastern time on March 1, 2023 (the "Expiration Time"). Pursuant to the Rights Offering, Eligible Securityholders received one non-transferable subscription right (a "Subscription Right") for every four shares of common stock owned by such Eligible Securityholders. Each Subscription Right entitled an Eligible Securityholder to purchase, at such Eligible Securityholder's election, one share of common stock at a price of \$5.25 per share (the "Subscription Price").

The Investors received private subscription rights to purchase up to 28,647,259 shares of common stock at the Subscription Price pursuant to a concurrent private rights offering (the "Concurrent Private Rights Offering") in connection with their ownership of common stock and, on an as-converted basis, the Company's Series B Warrants and shares of the Company's Series A Redeemable Convertible Preferred Stock. The private subscription rights provided to the Investors pursuant to the Concurrent Private Rights Offering were on substantially the same terms as the Subscription Rights, and were distributed substantially concurrently with the distribution of the Subscription Rights and expired at the Expiration Time. In connection with the Rights Offering, Starboard purchased 15,000,000 shares of common stock.

The Company determined that upon entering into the Recapitalization Agreement on October 30, 2022, the Rights Offering and Concurrent Private Rights Offering and related commitment required no recognition in the Company's financial statements. The Company recognized the proceeds received from the sale of the shares in equity when the sale occurred.

The Company received aggregate gross proceeds of approximately \$ 361,000 from the Rights Offering and aggregate gross proceeds of approximately \$78.8 million from the Concurrent Private Rights Offering and issued an aggregate of 15,068,753 shares of common stock.

The Rights Offering was made pursuant to a prospectus supplement to the Company's shelf registration statement on Form S-3 (No. 333-249984), filed with the SEC on February 14, 2023.

Governance

Under the Recapitalization Agreement, the parties agreed that for a period from the date of the Recapitalization Agreement until May 12, 2026 (the "Applicable Period"), the Board of the Company will include at least two (2) directors that are independent of, and not affiliates (as defined in Rule 144 of the Securities Exchange Act of 1934, as amended) of, Starboard, with current Board members Maureen O'Connell and Isaac T. Kohlberg satisfying this initial condition under the Recapitalization Agreement. The parties also agreed that Katharine Wolanyk would continue to serve as a director of the Company until at least May 12, 2024 (or such earlier date if Ms. Wolanyk is unwilling or unable to serve as a director for any reason or resigns as a director). Additionally, the Company appointed Gavin Molinelli as a member and as Chair of the Board. The Company and Starboard also agreed that, following the closing of the Series B Warrants Exercise until the end of the Applicable Period, the number of directors serving on the Board will not exceed 10 members.

Other Provisions of the Recapitalization Agreement

On February 14, 2023, the Company entered into an amended and restated Registration Rights Agreement with Starboard as contemplated by the Recapitalization Agreement.

Pursuant to the amended Registration Rights Agreement, the Company has agreed to file a registration statement covering the resale of the shares of common stock, issuable or issued to Starboard pursuant to or in accordance with Section 1.1 of the Recapitalization Agreement, including the shares issued to Starboard in the Concurrent Private Rights Offering, within 90 days after a written request made prior to the first anniversary of the Closing Date (as defined in the Registration Rights Agreement). The Registration Rights Agreement also provides Starboard with additional rights to require that the Company file a registration statement in other circumstances. The Registration Rights Agreement includes other customary terms.

The Recapitalization Agreement includes a "fair price" provision requiring, in addition to any other stockholder vote required by the Company's Certificate of Incorporation or Delaware law, the affirmative vote of the holders of a majority of the outstanding voting stock held by stockholders of the Company other than Starboard and its affiliates, by or with whom or on whose behalf, directly or indirectly, a business combination is proposed, in order to approve such a business combination; provided, that the additional majority voting requirement would not be applicable if either (x) the business combination is approved by the Board by the affirmative vote of at least a majority of the directors who are unaffiliated with Starboard or (y) (i) the consideration to be received by stockholders other than Starboard and its affiliates meets certain minimum price conditions, and (ii) the consideration to be received by stockholders other than Starboard and its affiliates is of the same form and kind as the consideration paid by Starboard and its affiliates.

The Recapitalization Agreement also provided that, effective as of the later of the closing of the Recapitalization Transactions and the date on which no Senior Secured Notes remain outstanding, (i) the Securities Purchase Agreement and (ii) that certain Governance Agreement, dated as of November 18, 2019, as amended and restated on January 7, 2020 (the "Governance Agreement"), shall be automatically terminated and of no further force and effect without any further action by any party thereto. As a result of the closing of the Recapitalization Transactions, the Securities Purchase Agreement and the Governance Agreement have been terminated and are of no further force and effect.

9. FAIR VALUE MEASUREMENTS

U.S. GAAP defines fair value as the price that would be received for an asset or the exit price that would be paid to transfer a liability in the principal or most advantageous market in an orderly transaction between market participants on the measurement date, and also establishes a fair value hierarchy which requires an entity to maximize the use of observable inputs, where available. The three-level hierarchy of valuation techniques established to measure fair value is defined as follows:

- (i) **Level 1 - *Observable Inputs*:** Quoted prices in active markets for identical investments;
- (ii) **Level 2 - *Pricing Models with Significant Observable Inputs*:** Other significant observable inputs, including quoted prices for similar investments, interest rates, credit risk, etc.; and

- (iii) **Level 3 - Unobservable Inputs:** Unobservable inputs reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model. Management estimates include certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs, including the entity's own assumptions in determining the fair value of derivatives and certain investments.

Whenever possible, the Company is required to use observable market inputs (Level 1) when measuring fair value. In such cases, the level at which the fair value measurement falls is determined based on the lowest level input that is significant to the fair value measurement. The assessment of the significance of a particular input requires judgment and considers factors specific to the asset or liability being measured. In certain cases, inputs used to measure fair value may fall into different levels of the fair value hierarchy.

The Company held the following types of financial instruments at fair value on a recurring basis as of June 30, 2023 and December 31, 2022:

Equity Securities. Equity securities includes investments in public company common stock and are recorded at fair value based on the quoted market price of each share on the valuation date. The fair value of these securities are within Level 1 of the valuation hierarchy. Equity investments that do not have regular market pricing, but for which fair value can be determined based on other data values or market prices, are recorded at fair value within Level 2 of the valuation hierarchy. The Company has elected to apply the fair value method to one equity securities investment that would otherwise be accounted for under the equity method of accounting. As of June 30, 2023, the aggregate carrying amount of this investment was \$ 42.2 million, and is included in equity securities, in the consolidated balance sheet (refer to Note 3 for additional information).

Series B Warrants. Series B Warrants are recorded at fair value, using a Black-Scholes option-pricing model (Level 3). On October 28, 2022, the cash exercise feature of the Unadjusted Series B Warrants expired, which resulted in a fair value of zero for such warrants (refer to Note 8 for additional information). The fair value of the remaining Series B Warrants as of June 30, 2023 was estimated based on the following significant assumptions: volatility of 120 percent, risk-free rate of 5.24 percent, term of 0.04 years and a dividend yield of 0 percent. The fair value of the remaining Series B Warrants as of December 31, 2022 was estimated based on the following significant assumptions: volatility of 53 percent, risk-free rate of 4.76 percent, term of 0.54 years and a dividend yield of 0 percent. Refer to the " *Embedded derivative liabilities*" discussion below for additional information on assumptions.

Embedded derivative liabilities. Embedded derivatives that are required to be bifurcated from their host contract are evaluated and valued separately from the host instrument. During the quarter ended December 31, 2022 in connection with the Recapitalization Agreement, the Company changed its methodology from a binomial lattice framework to an as-converted value (Level 3), based on an expected Series A Redeemable Convertible Preferred Stock conversion date on or prior to July 14, 2023 (refer to Note 8 for additional information).

The volatility of the Company's common stock is estimated by analyzing the Company's historical volatility, implied volatility of publicly traded stock options, and the Company's current asset composition and financial leverage. Prior to December 31, 2022, the selected volatility, as described herein, represented a haircut from the Company's actual realized historical volatility. A volatility haircut is a concept used to describe a commonly observed occurrence in which the volatility implied by market prices involving options, warrants and convertible debt is lower than historical actual realized volatility. Prior to December 31, 2022, the assumed base case term used in the valuation models was the period remaining until November 15, 2027, the Series A Redeemable Convertible Preferred Stock maturity date. The risk-free interest rate was based on the yield on the U.S. Treasury with a remaining term equal to the expected term of the conversion and early redemption options. The fair value of the embedded derivative as of June 30, 2023 was estimated based on the following significant assumptions: coupon rate of 8.00 percent, conversion ratio of 27.40, conversion date of July 14, 2023 and a discount rate of 14.80 percent. The fair value of the embedded derivative as of December 31, 2022 was estimated based on the following significant assumptions: coupon rate of 8.00 percent, conversion ratio of 27.40, conversion date of July 14, 2023 and a discount rate of 16.30 percent. The fair value measurement of the embedded derivative is sensitive to these assumptions and changes in these assumptions could result in a materially different fair value measurement.

Financial assets and liabilities measured at fair value on a recurring basis were as follows:

	Level 1	Level 2	Level 3	Total
	(In thousands)			
<u>Assets</u>				
June 30, 2023:				
Equity securities	\$ 52,853	\$ —	\$ —	\$ 52,853
December 31, 2022:				
Equity securities	\$ 61,608	\$ —	\$ —	\$ 61,608
<u>Liabilities</u>				
June 30, 2023:				
Series A embedded derivative liabilities	\$ —	\$ —	\$ 12,881	\$ 12,881
Series B warrants	—	—	82,018	82,018
Total	\$ —	\$ —	\$ 94,899	\$ 94,899
December 31, 2022:				
Series A embedded derivative liabilities	\$ —	\$ —	\$ 16,835	\$ 16,835
Series B warrants	—	—	84,780	84,780
Total	\$ —	\$ —	\$ 101,615	\$ 101,615

The following table sets forth a summary of the changes in the estimated fair value of the Company's Level 3 liabilities, which are measured at fair value as a on a recurring basis:

	Series A Warrant Liabilities	Series A Embedded Derivative Liabilities	Series B Warrant Liabilities	Total
	(In thousands)			
Balance at December 31, 2021	\$ 11,291	\$ 18,448	\$ 96,378	\$ 126,117
Remeasurement to fair value	1,494	5,151	403	7,048
Balance at June 30, 2022	12,785	23,599	96,781	133,165
Balance at December 31, 2022	\$ —	\$ 16,835	\$ 84,780	\$ 101,615
Remeasurement to fair value	—	(3,954)	(2,762)	(6,716)
Balance at June 30, 2023	\$ —	\$ 12,881	\$ 82,018	\$ 94,899

For the three months ended June 30, 2023 and 2022, the changes in the estimated fair value of the Series A warrants, Series A embedded derivatives and Series B warrants were zero, \$1.1 million, and \$8.9 million, and \$2.4 million, \$9.1 million, and \$23.7 million, respectively.

In accordance with U.S. GAAP, from time to time, the Company measures certain assets at fair value on a nonrecurring basis. The Company reviews the carrying value of equity securities without readily determinable fair value, equity method investments and patents on a quarterly basis for indications of impairment, and other long-lived assets at least annually. When indications of potential impairment are identified, the Company may be required to determine the fair value of those assets and record an adjustment for the carrying amount in excess of the fair value determined. Any fair value determination would be based on valuation approaches, which are appropriate under the circumstances and utilize Level 2 and Level 3 measurements as required.

10. RELATED PARTY TRANSACTIONS

The Company reimbursed an aggregate amount of zero and \$45,000 during the six months ended June 30, 2023 and 2022, respectively, to a former executive officer in connection with legal fees incurred following such officer's departure from the Company.

Refer to Note 8 for information about the Recapitalization Agreement with Starboard.

11. COMMITMENTS AND CONTINGENCIES

Facility Leases

Acacia primarily leases office facilities under operating lease arrangements that will end in various years through December 2025.

On June 7, 2019, Acacia entered into a building lease agreement with Jamboree Center 4 LLC. Pursuant to the lease, we have leased 8,293 square feet of office space in Irvine, California. The lease commenced on August 1, 2019. The term of the lease is 60 months from the commencement date, provides for annual rent increases, and does not provide us the right to early terminate or extend our lease terms.

On January 7, 2020, Acacia entered into a building lease agreement with Sage Realty Corporation. Pursuant to the lease, as amended, we have leased approximately 8,600 square feet of office space for our corporate headquarters in New York, New York. The lease commenced on February 1, 2020. The term of the initial lease was 24 months from the commencement date, provides for annual rent increases, and does not provide us the right to early terminate or extend our lease terms. During August 2021, we entered into a first amendment of the New York office lease, to commence for a period of three years upon landlord's substantial completion of adequate substitution space. On January 25, 2022, the substitution space was substantially completed and the new expiration date is February 28, 2025. During July 2022, we entered into a second amendment of the New York office lease, to add space to the existing premises and increase the annual fixed rent through the existing expiration date. The new fixed rent commenced upon landlord's substantial completion of the additional space, which occurred on September 19, 2022. On June 23, 2023, the Company notified the landlord of its election to early terminate the lease effective as of March 31, 2024, pursuant to the terms set forth in the lease. In connection with such early termination election, the Company paid the landlord a termination payment as set forth in the lease.

Printronic conducts its foreign and domestic operations using leased facilities under non-cancelable operating leases that expire at various dates through February 2028. Printronic has leased 73,649 square feet of facilities space, of which the significant leases are as follows:

- On November 10, 2020, Printronic entered into a building lease agreement with PPC Irvine Center Investment, LLC for 8,662 square feet of office space in Irvine, California. The lease commenced on April 1, 2021. The term of the lease is 65 months from the commencement date, provides for annual rent increases and provides the right to early terminate the lease under certain circumstances, as well as extend the lease term.
- On September 30, 2019, Printronic entered into a building lease agreement with Dynamics Sing Sdn. Bhd for 52,000 square feet of warehouse/manufacturing space in Johor, Malaysia. The lease commenced on December 29, 2019. The term of the lease is 48 months from the commencement date, has no annual rent increases and provides the right to early terminate or extend our lease term. The Malaysia factory lease has two renewal options for an additional four years and one additional renewal option for two years. On July 26, 2023, Printronic entered into a lease agreement to renew the lease for another 24 months commencing on December 29, 2023.
- On June 2, 2022, Printronic entered into a building lease agreement with HSBC Institutional Trust Services (Singapore) Limited for 4,560 square feet of office space in Singapore. The lease commenced on June 13, 2022. The term of the lease is 36 months from the commencement date, has no annual rent increases and does not provide the right to early terminate or extend the lease term.

- On November 28, 2019, Printronix entered into a building lease agreement with PF Grand Paris for 3,045 square feet of office space in Paris, France. The lease commenced on March 1, 2019. The term of the lease is 109 months from the commencement date, has no annual rent increases and provides the right to early terminate the lease under certain circumstances, however it does not provide for an extension of the lease term.
- On November 1, 2020, Printronix entered into a building lease agreement with Shanghai SongYun Enterprise Management Center for 2,422 square feet of office space in Shanghai, China. The lease commenced on November 1, 2020. The term of the lease is 48 months from the commencement date, has no annual rent increases and provides the right to early terminate or extend the lease term.

The Company's operating lease costs were \$200,000 and \$339,000 for the three months ended June 30, 2023 and 2022, respectively, and \$ 588,000 and \$796,000 for the six months ended June 30, 2023 and 2022, respectively.

The table below presents aggregate future minimum lease payments due under the Company's leases discussed above, reconciled to long-term lease liabilities and short-term lease liabilities (included in accrued expenses and other current liabilities) included in the consolidated balance sheet as of June 30, 2023 (in thousands):

Years Ending December 31,

Remainder of 2023	\$	775
2024		776
2025		372
2026		239
2027		66
Thereafter		—
Total minimum payments		2,228
Less: short-term lease liabilities		(1,330)
Long-term lease liabilities	\$	898

Inventor Royalties and Contingent Legal Expenses

In connection with the investment in certain patents and patent rights, certain of Acacia's operating subsidiaries executed related agreements which grant to the former owners of the respective patents or patent rights, the right to receive inventor royalties based on future net revenues (as defined in the respective agreements) generated as a result of licensing and otherwise enforcing the respective patents or patent portfolios.

Acacia's operating subsidiaries may retain the services of law firms that specialize in patent licensing and enforcement and patent law in connection with their licensing and enforcement activities. These law firms may be retained on a contingent fee basis whereby such law firms are paid on a scaled percentage of any negotiated fees, settlements or judgments awarded based on how and when the fees, settlements or judgments are obtained.

Patent Enforcement and Legal Proceedings

The Company is subject to claims, counterclaims and legal actions that arise in the ordinary course of business. Management believes that the ultimate liability with respect to these claims and legal actions, if any, will not have a material effect on the Company's consolidated financial position, results of operations or cash flows.

Certain of Acacia's operating subsidiaries are often required to engage in litigation to enforce their patents and patent rights. In connection with any of Acacia's operating subsidiaries' patent enforcement actions, it is possible that a defendant may request and/or a court may rule that an operating subsidiary has violated statutory authority, regulatory authority, federal rules, local court rules, or governing standards relating to the substantive or procedural aspects of such enforcement actions. In such event, a court may issue monetary sanctions against Acacia or its operating subsidiaries or award attorney's fees and/or expenses to a defendant(s), which could be material.

On September 6, 2019, Slingshot Technologies, LLC ("Slingshot"), filed a lawsuit in Delaware Chancery Court against the Company and ARG (collectively, the "Acacia Entities"), Monarch Networking Solutions LLC ("Monarch"), Acacia board

member Katharine Wolanyk, and Transpacific IP Group, Ltd. ("Transpacific"). Slingshot alleges that the Acacia Entities and Monarch misappropriated its confidential and proprietary information, purportedly furnished to the Acacia Entities and Monarch by Ms. Wolanyk, in acquiring a patent portfolio from Transpacific after Slingshot's exclusive option to purchase the same patent portfolio from Transpacific had already expired. Slingshot seeks monetary damages, as well as equitable and injunctive relief related to its alleged right to own the portfolio. On March 15, 2021, the Court issued orders granting Monarch's motion to dismiss for lack of personal jurisdiction and Ms. Wolanyk's motion to dismiss for lack of subject matter jurisdiction. The remaining parties served written discovery requests and responses, exchanged their respective document productions, and completed depositions as of October 27, 2022. On November 18, 2022, the Acacia Entities and Transpacific filed motions for summary judgment on Slingshot's claims. Slingshot filed its opposition to the summary judgment motions on December 23, 2022, and the Acacia Entities and Transpacific filed their replies on January 10, 2023. The Chancery Court took off calendar the two-day trial on liability that had been scheduled for April 18–19, 2023, and instead set the hearing on the summary judgment motions for April 19, 2023. On April 19, 2023, the Chancery Court heard oral argument and took the summary judgment motions under advisement. On July 26, 2023, the Court held a telephonic hearing during which it delivered its ruling on the motions for summary judgment. The Court granted Transpacific's motion and deferred ruling on the Acacia Entities' motion pending further briefing as to whether the Court has subject matter jurisdiction. The Court ordered Slingshot and the Acacia Entities to meet and confer on a briefing schedule. The timing of a further hearing or the Court's ultimate ruling on the subject matter jurisdiction question and/or the Acacia Entities' motion for summary judgment is unknown at this time.

Guarantees and Indemnifications

Acacia and certain of Acacia's operating subsidiaries have made guarantees and indemnities under which they may be required to make payments to a guaranteed or indemnified party, in relation to certain transactions, including revenue transactions in the ordinary course of business. In connection with certain facility leases, Acacia and certain of its operating subsidiaries have indemnified lessors for certain claims arising from the facilities or the leases. Acacia indemnifies its directors and officers to the maximum extent permitted under the laws of the State of Delaware. However, Acacia has a directors and officers insurance policy that may reduce its exposure in certain circumstances and may enable it to recover a portion of future amounts that may be payable, if any. The duration of the guarantees and indemnities varies and, in many cases is indefinite but subject to statute of limitations. The majority of guarantees and indemnities do not provide any limitations of the maximum potential future payments that Acacia could be obligated to make. To date, Acacia has made no material payments related to these guarantees and indemnities. Acacia estimates the fair value of its indemnification obligations to be immaterial based on this history and therefore, have not recorded any material liability for these guarantees and indemnities in the consolidated balance sheets. Additionally, no events or transactions have occurred that would result in a material liability as of June 30, 2023.

Printronix posted collateral in the form of a surety bond or other similar instruments, which are issued by independent insurance carriers (the "Surety"), to cover the risk of loss related to certain customs and employment activities. If any of the entities that hold such bonds should require payment from the Surety, Printronix would be obligated to indemnify and reimburse the Surety for all costs incurred. As of June 30, 2023 and December 31, 2022, Printronix had approximately \$100,000 of these bonds outstanding.

Environmental Cleanup

Printronix maintained a manufacturing operation in a leased facility in Irvine, California from 1980 to 1994. The facility was used for similar manufacturing operations by another tenant from 1968 to 1977. The manufacturing operations employed by the previous tenant are believed to have resulted in the contamination of soil and groundwater under the facility which included chlorinated volatile organic compounds ("VOCs"). Evidence indicates that the VOCs requiring cleanup were used by the prior tenant and not by Printronix. Printronix worked with the prior tenant, which agreed to share the costs of the activities in an equal percentage with Printronix, and the state regulatory agencies, including the California Department of Toxic Substances Control, to investigate and cleanup the subsurface contamination. A significant soil cleanup project was completed in 2017.

In 2020, Printronix executed an agreement with the prior tenant whereby the prior tenant would take 100% responsibility for the costs and process of the cleanup going forward. Printronix is in process of filing for release of such responsibility from a governmental agency and so may currently be found to be secondarily liable if the prior tenant cannot fulfil their responsibilities under the agreement. Accordingly, Printronix no longer takes part in monitoring or paying for any future investigation or cleanup activity. Printronix expects to have no such further costs associated with this facility. During 2020,

Printronic was able to recover \$24,000 from the prior tenant. Since that date and for the six months ended June 30, 2023, Printronix has incurred no related legal fees.

12. STOCKHOLDERS' EQUITY

Repurchases of Common Stock

On December 6, 2021, the Board approved a stock repurchase program, which authorized the purchase of up to \$15.0 million of the Company's common stock through open market purchases, through block trades, through 10b5-1 plans, or by means of private purchases, from time to time, through December 6, 2022. During February 2022, we completed the December 2021 program with total common stock purchases of 3,125,819 shares for the aggregate amount of \$15.0 million.

On March 31, 2022, the Board approved a stock repurchase program for up to \$40.0 million of shares of common stock. The repurchase authorization had no time limit and did not require the repurchase of a minimum number of shares. The common stock may be repurchased on the open market, in block trades, or in privately negotiated transactions, including under plans complying with the provisions of Rule 10b5-1 and Rule 10b-18 of the Exchange Act. During July 2022, we completed the March 2022 program with total common stock purchases of 8,453,519 shares for the aggregate amount of \$40.0 million. There were no stock repurchases for the six months ended June 30, 2023.

In determining whether or not to repurchase any shares of Acacia's common stock, the Board considers such factors, among others, as the impact of the repurchase on Acacia's cash position, as well as Acacia's capital needs and whether there is a better alternative use of Acacia's capital. Acacia has no obligation to repurchase any amount of its common stock under its Stock Repurchase Programs. Repurchases to date were made in the open market in compliance with applicable SEC rules. The authorizations to repurchase shares presented an opportunity to reduce the outstanding share count and enhance stockholder value.

Tax Benefits Preservation Charter Provision

The Company has a provision in its Amended and Restated Certificate of Incorporation, as amended (the "Charter Provision") which generally prohibits transfers of its common stock that could result in an ownership change. The purpose of the Charter Provision is to protect the Company's ability to utilize potential tax assets, such as net operating loss carryforwards and tax credits to offset potential future taxable income. The Charter Provision was approved by the Company's stockholders on July 15, 2019.

13. EQUITY-BASED INCENTIVE PLANS

Stock-Based Incentive Plans

The 2013 Acacia Research Corporation Stock Incentive Plan ("2013 Plan") and the 2016 Acacia Research Corporation Stock Incentive Plan ("2016 Plan") (collectively, the "Plans") were approved by the stockholders of Acacia in May 2013 and June 2016, respectively. The Plans allow grants of stock options, stock awards and restricted stock units with respect to Acacia common stock to eligible individuals, which generally includes directors, officers, employees and consultants. The 2013 Plan expired in May 2023, therefore, Acacia exclusively grants awards under the 2016 Plan. Except as noted below, the terms and provisions of the Plans are identical in all material respects.

Acacia's compensation committee administers the Plans. The compensation committee determines which eligible individuals are to receive option grants, stock issuances or restricted stock units under the Plans, the time or times when the grants or issuances are to be made, the number of shares subject to each grant or issuance, the status of any granted option as either an incentive stock option or a non-statutory stock option under the federal tax laws, the vesting schedule to be in effect for the option grant, stock issuance or restricted stock units and the maximum term for which any granted option is to remain outstanding. The exercise price of options is equal to the fair market value of Acacia's common stock on the date of grant. Options generally begin to be exercisable one year after grant and expire ten years after grant. Stock options with time-based vesting generally vest over three years and restricted shares and restricted stock units with time-based vesting generally vest in full after one to three years (generally representing the requisite service period). The Plans terminate no later than the tenth anniversary of the approval of the incentive plans by Acacia's stockholders.

The Plans provide for the following separate programs:

Stock Issuance Program. Under the stock issuance program, eligible individuals may be issued shares of common stock directly, upon the attainment of performance milestones or the completion of a specified period of service or as a bonus for past services. Under this program, the purchase price for the shares shall not be less than 100% of the fair market value of the shares on the date of issuance, and payment may be in the form of cash or past services rendered. The eligible individuals receiving RSAs under the 2016 Plan shall have full stockholder rights with respect to any shares of common stock issued to them under the Stock Issuance Program once those shares are vested, and under the 2013 Plan, had full stockholder rights with respect to any shares of common stock issued to them under the Stock Incentive Program, whether or not their interest in those shares was vested. Accordingly, once full stockholder rights are obtained, the eligible individuals shall have the right to vote such shares and to receive any regular cash dividends paid on such shares.

Discretionary Option Grant Program. Under the discretionary option grant program, Acacia's compensation committee may grant (1) non-statutory options to purchase shares of common stock to eligible individuals in the employ or service of Acacia or its subsidiaries (including employees, non-employee board members and consultants) at an exercise price not less than 100% of the fair market value of those shares on the grant date, and (2) incentive stock options to purchase shares of common stock to eligible employees at an exercise price not less than 100% of the fair market value of those shares on the grant date (not less than 110% of fair market value if such employee actually or constructively owns more than 10% of Acacia's voting stock or the voting stock of any of its subsidiaries).

Discretionary Restricted Stock Unit Grant Program. Under the discretionary restricted stock unit program, Acacia's compensation committee may grant restricted stock units to eligible individuals, upon the attainment of performance milestones or the completion of a specified period of service. During June 2023, Acacia's compensation committee adopted a long-term incentive program to incentivize and reward employees, including members of the Company's executive leadership team, for driving Acacia's performance over the longer-term and to align employees and shareholders. Under the long-term incentive program, Acacia's compensation committee granted RSUs subject to time-based vesting requirements and RSUs subject to PSUs to employees of the parent company, including the Company's interim Chief Executive Officer, Chief Financial Officer, Chief Administrative Officer and General Counsel. The grants are generally intended to cover two years of annual grants (fiscal years 2023 and 2024).

The number of shares of common stock initially reserved for issuance under the 2013 Plan was 4,750,000 shares. The 2013 Plan has expired, and while awards remain outstanding under the 2013 Plan, no new awards may be granted under the 2013 Plan. The stock issued, or issuable pursuant to still-outstanding awards, under the 2013 Plan shall be shares of authorized but unissued or reacquired common stock, including shares repurchased by the Company on the open market. In June 2016, 625,390 shares of common stock available for issuance under the 2013 Plan were transferred into the 2016 Plan.

The number of shares of common stock initially reserved for issuance under the 2016 Plan was 4,500,000 shares plus 625,390 shares of common stock available for issuance under the 2013 Plan, which were transferred into the 2016 Plan as of the effective date of the 2016 Plan. In May 2022, security holders approved an increase of 5,500,000 shares of common stock authorized to be issued pursuant to the 2016 Plan. At June 30, 2023, there were 1,310,726 shares available for grant under the 2016 Plan.

Upon the exercise of stock options, the granting of RSAs, or the delivery of shares pursuant to vested RSUs, it is Acacia's policy to issue new shares of common stock. The Board may amend or modify the 2016 Plan at any time, subject to any required stockholder approval. As of June 30, 2023, there are 5,876,133 shares of common stock reserved for issuance under the 2016 Plan.

The following table summarizes stock option activity for the Plans:

	Options	Weighted Average Exercise Price	Aggregate Intrinsic Value	Weighted Average Remaining Contractual Life
	(In thousands)			
Outstanding at December 31, 2022	1,310,417	\$ 4.29	\$ 535	8.0 years
Granted	243,319	\$ 4.27	\$ —	
Exercised	(59,568)	\$ 3.47	\$ 53	
Forfeited/Expired	(333,049)	\$ 4.63	\$ 72	
Outstanding at June 30, 2023	<u>1,161,119</u>	\$ 4.21	\$ 352	8.0 years
Exercisable at June 30, 2023	<u>362,931</u>	\$ 4.78	\$ 92	6.0 years
Vested and expected to vest at June 30, 2023	<u>1,161,119</u>	\$ 4.21	\$ 352	8.0 years
Unrecognized stock-based compensation expense at June 30, 2023 (in thousands)	<u>\$ 1,023</u>			
Weighted average remaining vesting period at June 30, 2023	<u>2.3 years</u>			

Stock options granted in 2023 are time-based and will vest in full after three years. During the six months ended June 30, 2023, the Company granted 243,319 stock options at a weighted average grant-date fair value of \$ 2.10 per share using the Black-Scholes option-pricing model. The fair value was estimated based on the following weighted average assumptions: volatility of 46 percent, risk-free interest rate of 3.67 percent, term of 6.00 years and a dividend yield of 0 percent as the Company does not pay common stock dividends. The volatility of the Company's common stock is estimated by analyzing the Company's historical volatility, implied volatility of publicly traded stock options, and the Company's current asset composition and financial leverage (refer to Note 9 "Embedded derivative liabilities" for additional information). The risk-free rate is based on the term assumption and U.S. Treasury constant maturities as published by the Federal Reserve. The Company currently uses the "simplified" method for determining the term, due to the limited option grant history, which assumes that the exercise date of an option would be halfway between its vesting date and the expiration date. The aggregate fair value of options vested during the six months ended June 30, 2023 was \$309,000.

The following table summarizes nonvested restricted stock activity for the Plans:

	RSAs		RSUs		PSUs	
	Shares	Weighted Average Grant Date Fair Value	Units	Weighted Average Grant Date Fair Value	Units	Weighted Average Grant Date Fair Value
Nonvested at December 31, 2022	406,001	\$ 4.02	842,302	\$ 4.42	—	\$ —
Granted	—	\$ —	1,116,875	\$ 4.34	1,981,464	\$ 4.61
Vested	(178,169)	\$ 4.10	(313,351)	\$ 4.59	—	\$ —
Forfeited	(34,167)	\$ 4.38	(223,002)	\$ 4.38	—	\$ —
Nonvested at June 30, 2023	<u>193,665</u>	\$ 3.87	<u>1,422,824</u>	\$ 4.32	<u>1,981,464</u>	\$ 4.61
Unrecognized stock-based compensation expense at June 30, 2023 (in thousands)	<u>\$ 615</u>		<u>\$ 5,566</u>		<u>\$ —</u>	
Weighted average remaining vesting period at June 30, 2023	<u>1.5 years</u>		<u>2.3 years</u>		<u>—</u>	

RSUs granted in 2023 are time-based and will vest in full after one to three years. The aggregate fair value of RSAs vested during the six months ended June 30, 2023 was \$731,000. The aggregate fair value of RSUs vested during the six months ended June 30, 2023 was \$ 1.4 million. During the six months ended June 30, 2023, RSAs and RSUs totaling 491,520 shares were vested and 137,577 shares of common stock were withheld to pay applicable required employee statutory withholding taxes based on the market value of the shares on the vesting date.

Certain RSUs were granted in September 2019 with market-based vesting conditions that vest based upon the Company achieving specified stock price targets over a three-year period. The effect of a market condition is reflected in the estimate of the grant-date fair value of the options utilizing a Monte Carlo valuation technique. Compensation expense is recognized

with a market-based vesting condition provided that the requisite service is rendered, regardless of when, if ever, the market condition is satisfied. Assumptions utilized in connection with the Monte Carlo valuation technique, that resulted in a fair value of \$1.42 per unit, included: risk-free interest rate of 1.38 percent, term of 3.00 years, expected volatility of 38 percent and expected dividend yield of 0 percent. The risk-free interest rate was determined based on the yields available on U.S. Treasury zero-coupon issues. The expected stock price volatility was determined using historical volatility. The expected dividend yield was based on expectations regarding dividend payments. During the year ended December 31, 2021, 450,000 RSUs were forfeited, leaving 450,000 units with market-based vesting conditions outstanding and unvested at prior period end. The remaining units fully vested on September 3, 2022. Compensation expense for RSUs with market-based vesting conditions for the six months ended June 30, 2023 and 2022, was zero and \$106,000, respectively.

The number of PSUs granted in 2023 that can be earned ranges from 0% to 200% of the target number of PSUs granted (up to a maximum of 750,000 shares per recipient of Acacia's common stock) and will be based upon the level of achievement of the Company's compound annual growth rate of its adjusted book value per share, measured over a three-year performance period beginning on January 1, 2023 and ending on December 31, 2025. Such number of PSUs that are ultimately earned and eligible to vest will generally become vested on the third anniversary of the grant date subject to continued employment through such date. The Company has not recorded any expense related to the PSUs based on the probability assessment performed as of June 30, 2023.

Compensation expense for share-based awards recognized in general and administrative expenses was comprised of the following:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
(In thousands)				
Options	\$ 121	\$ 170	\$ 149	\$ 302
RSAs	186	343	395	871
RSUs	567	570	807	1,084
Total compensation expense for share-based awards	<u>\$ 874</u>	<u>\$ 1,083</u>	<u>\$ 1,351</u>	<u>\$ 2,257</u>

Total unrecognized stock-based compensation expense as of June 30, 2023 was \$ 7.2 million, which will be amortized over a weighted average remaining vesting period of 2.3 years.

Profits Interest Plan

Profits Interest Units ("PIUs") were accounted for in accordance with ASC 718, "Compensation - Stock Compensation." The vesting conditions did not meet the definition of service, market or performance conditions, as defined in ASC 718. As such, the PIUs were classified as liability awards. Compensation expense was adjusted for changes in fair value prorated for the portion of the requisite service period rendered. Initially, compensation expense was recognized on a straight-line basis over the employee's requisite service period (generally the vesting period of the equity award) which was five years. Upon full vesting of the award, which occurred during the three months ended September 30, 2017, previously unrecognized compensation expense was immediately recognized in the period. The Company has a purchase option to purchase the vested PIUs that are not otherwise forfeited after termination of continuous service. The exercise price of the purchase option is the fair market value of the PIUs on the date of termination of continuous service. The individuals holding PIUs are no longer employed by the Company. Included in other long-term liabilities in the consolidated balance sheets as of June 30, 2023 and December 31, 2022, the PIUs totaled \$775,000 and \$591,000, respectively, which was their fair value as of December 31, 2018 after termination of service.

14. INCOME/LOSS PER SHARE

The following table presents the calculation of basic and diluted income/loss per share of common stock:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
(In thousands, except share and per share data)				
Numerator:				
Net loss attributable to Acacia Research Corporation	\$ (18,779)	\$ (61,503)	\$ (9,332)	\$ (134,769)
Dividend on Series A redeemable convertible preferred stock	(700)	(699)	(1,400)	(1,399)
Accretion of Series A redeemable convertible preferred stock	(1,676)	(1,241)	(3,230)	(2,392)
Undistributed earnings allocated to participating securities	—	—	—	—
Net loss attributable to common stockholders - Basic	(21,155)	(63,443)	(13,962)	(138,560)
Add: Dividend on Series A redeemable convertible preferred stock	—	—	—	—
Add: Accretion of Series A redeemable convertible preferred stock	—	—	—	—
Less: Change in fair value of Series A redeemable convertible preferred stock embedded derivative	—	—	—	—
Less: Change in fair value of Series A warrants	—	—	—	—
Less: Change in fair value of dilutive Series B warrants	—	—	—	—
Add: Interest expense associated with Starboard Notes, net of tax	—	—	—	—
Add: Undistributed earnings allocated to participating securities	—	—	—	—
Reallocation of undistributed earnings to participating securities	—	—	—	—
Net loss attributable to common stockholders - Diluted	<u>\$ (21,155)</u>	<u>\$ (63,443)</u>	<u>\$ (13,962)</u>	<u>\$ (138,560)</u>
Denominator:				
Weighted average shares used in computing net (loss) income per share attributable to common stockholders - Basic	58,408,711	43,988,677	53,219,152	45,259,435
Potentially dilutive common shares:				
Series A Redeemable Convertible Preferred Stock	—	—	—	—
Restricted stock units	—	—	—	—
Stock options	—	—	—	—
Series A Warrants	—	—	—	—
Series B Warrants	—	—	—	—
Weighted average shares used in computing net (loss) income per share attributable to common stockholders - Diluted	<u>58,408,711</u>	<u>43,988,677</u>	<u>53,219,152</u>	<u>45,259,435</u>
Basic net loss per common share	<u>\$ (0.36)</u>	<u>\$ (1.44)</u>	<u>\$ (0.26)</u>	<u>\$ (3.06)</u>
Diluted net loss per common share	<u>\$ (0.36)</u>	<u>\$ (1.44)</u>	<u>\$ (0.26)</u>	<u>\$ (3.06)</u>
Anti-dilutive potential common shares excluded from the computation of diluted net income/loss per share:				
Equity-based incentive awards	4,759,072	3,711,223	4,759,072	3,711,223
Series A warrants	—	5,000,000	—	5,000,000
Series B warrants	31,506,849	100,000,000	31,506,849	100,000,000
Total	<u>36,265,921</u>	<u>108,711,223</u>	<u>36,265,921</u>	<u>108,711,223</u>

15. SEGMENT REPORTING

As of June 30, 2023, the Company operates and reports its results in two reportable segments: Intellectual Property Operations and Industrial Operations.

The Company reports segment information based on the management approach and organizes its businesses based on products and services. The management approach designates the internal reporting used by the chief operating decision maker for decision making and performance assessment as the basis for determining the Company's reportable segments. The performance measure of the Company's reportable segments is primarily income or (loss) from operations. Income or (loss) from operations for each segment includes all revenues, cost of revenues, gross profit and other operating expenses directly attributable to the segment. Other than the Company's equity securities investments, specific asset information is not included in managements review at this time.

The Company's Intellectual Property Operations segment invests in IP and related absolute return assets, and engages in the licensing and enforcement of patented technologies. Through our Patent Licensing, Enforcement and Technologies Business we are a principal in the licensing and enforcement of patent portfolios, with our operating subsidiaries obtaining the rights in the patent portfolio or purchasing the patent portfolio outright. While we, from time to time, partner with inventors and patent owners, from small entities to large corporations, we assume all responsibility for advancing operational expenses while pursuing a patent licensing and enforcement program. When applicable, we share net licensing revenue with our patent partners as that program matures, on a prearranged and negotiated basis. We may also provide upfront capital to patent owners as an advance against future licensing revenue. Currently, on a consolidated basis, our operating subsidiaries own or control the rights to multiple patent portfolios, which include U.S. patents and certain foreign counterparts, covering technologies used in a variety of industries. We generate revenues and related cash flows from the granting of IP rights for the use of patented technologies that our operating subsidiaries control or own.

The Company's Industrial Operations segment generates operating income by designing and manufacturing printers and consumable products for various industrial printing applications. Printers consist of hardware and embedded software and may be sold with maintenance service agreements. Consumable products include inked ribbons which are used in Printronix's printers. Printronix's products are primarily sold through channel partners, such as dealers and distributors, to end-users.

The Company's segment information is as follows:

Three Months Ended June 30,						
2023			2022			
Intellectual Property Operations	Industrial Operations	Total	Intellectual Property Operations	Industrial Operations	Total	
(In thousands)						
Revenues:						
License fees	\$ 394	\$ —	\$ 394	\$ 8,062	\$ —	\$ 8,062
Printers and parts	—	2,324	2,324	—	3,662	3,662
Consumable products	—	4,328	4,328	—	4,214	4,214
Services	—	858	858	—	779	779
Total revenues	394	7,510	7,904	8,062	8,655	16,717
Cost of revenues:						
Inventor royalties	145	—	145	190	—	190
Contingent legal fees	12	—	12	755	—	755
Litigation and licensing expenses	2,253	—	2,253	1,089	—	1,089
Amortization of patents	2,600	—	2,600	2,600	—	2,600
Cost of sales	—	3,933	3,933	—	4,592	4,592
Total cost of revenues	5,010	3,933	8,943	4,634	4,592	9,226
Segment gross (loss) profit	(4,616)	3,577	(1,039)	3,428	4,063	7,491
Other operating expenses:						
Engineering and development expenses	—	205	205	—	145	145
Sales and marketing expenses	—	1,859	1,859	—	2,294	2,294
Amortization of intangible assets	—	434	434	—	433	433
General and administrative expenses	1,602	1,592	3,194	1,807	2,253	4,060
Total other operating expenses	1,602	4,090	5,692	1,807	5,125	6,932
Segment operating (loss) income	\$ (6,218)	\$ (513)	(6,731)	\$ 1,621	\$ (1,062)	559
Parent general and administrative expenses		5,798			6,229	
Operating loss		(12,529)			(5,670)	
Total other expense		(7,895)			(42,020)	
Income before income taxes		\$ (20,424)			\$ (47,690)	

Six Months Ended June 30,						
2023			2022			
Intellectual Property Operations	Industrial Operations	Total	Intellectual Property Operations	Industrial Operations	Total	
(In thousands)						
Revenues:						
License fees	\$ 4,570	\$ —	\$ 4,570	\$ 10,677	\$ —	\$ 10,677
Printers and parts	—	6,788	6,788	—	7,916	7,916
Consumable products	—	9,498	9,498	—	9,598	9,598
Services	—	1,851	1,851	—	2,033	2,033
Total revenues	4,570	18,137	22,707	10,677	19,547	30,224
Cost of revenues:						
Inventor royalties	366	—	366	360	—	360
Contingent legal fees	544	—	544	1,304	—	1,304
Litigation and licensing expenses	3,637	—	3,637	2,333	—	2,333
Amortization of patents	5,201	—	5,201	5,201	—	5,201
Cost of sales	—	9,153	9,153	—	8,784	8,784
Total cost of revenues	9,748	9,153	18,901	9,198	8,784	17,982
Segment gross (loss) profit	(5,178)	8,984	3,806	1,479	10,763	12,242
Other operating expenses:						
Engineering and development expenses	—	421	421	—	335	335
Sales and marketing expenses	—	3,772	3,772	—	4,310	4,310
Amortization of intangible assets	—	867	867	—	866	866
General and administrative expenses	3,499	3,877	7,376	3,523	4,675	8,198
Total other operating expenses	3,499	8,937	12,436	3,523	10,186	13,709
Segment operating (loss) income	\$ (8,677)	\$ 47	(8,630)	\$ (2,044)	\$ 577	(1,467)
Parent general and administrative expenses			13,223			12,711
Operating loss			(21,853)			(14,178)
Total other income (expense)			13,359			(121,656)
Loss before income taxes			\$ (8,494)			\$ (135,834)

	June 30, 2023	December 31, 2022
	(In thousands)	
Equity securities investments:		
Equity securities	\$ 52,853	\$ 61,608
Equity securities without readily determinable fair value	5,816	5,816
Equity method investments	30,934	30,934
Total parent equity securities investments	89,603	98,358
Other parent assets	236,915	156,394
Segment total assets:		
Intellectual property operations	161,050	176,119
Industrial operations	47,140	52,057
Total assets	\$ 534,708	\$ 482,928

The Company's revenues and long-lived tangible assets by geographic area are presented below. Intellectual Property Operations revenues are attributed to licensees domiciled in foreign jurisdictions. Printronix's net sales to external customers are attributed to geographic areas based upon the final destination of products shipped. The Company, primarily through its Printronix subsidiary, has identified three global regions for marketing its products and services: Americas, Europe, Middle East and Africa, and Asia-Pacific. Assets are summarized based on the location of held assets.

	Three Months Ended June 30,					
	2023			2022		
	Intellectual Property Operations	Industrial Operations	Total	Intellectual Property Operations	Industrial Operations	Total
	(In thousands)					
Revenues by geographic area:						
United States	\$ 386	\$ 3,277	\$ 3,663	\$ 7,964	\$ 4,032	\$ 11,996
Canada and Latin America	7	334	341	4	180	184
Total Americas	393	3,611	4,004	7,968	4,212	12,180
Europe, Middle East and Africa	—	1,962	1,962	89	2,298	2,387
China	—	772	772	—	1,091	1,091
India	—	170	170	—	232	232
Asia-Pacific, excluding China and India	1	995	996	5	822	827
Total Asia-Pacific	1	1,937	1,938	5	2,145	2,150
Total revenues	\$ 394	\$ 7,510	\$ 7,904	\$ 8,062	\$ 8,655	\$ 16,717

Six Months Ended June 30,							
2023				2022			
Intellectual Property Operations	Industrial Operations	Total		Intellectual Property Operations	Industrial Operations	Total	
(In thousands)							
Revenues by geographic area:							
United States	\$ 1,059	\$ 7,511	\$ 8,570	\$ 10,061	\$ 7,881	\$ 17,942	
Canada and Latin America	508	553	1,061	10	552	562	
Total Americas	1,567	8,064	9,631	10,071	8,433	18,504	
Europe, Middle East and Africa	—	4,927	4,927	589	4,806	5,395	
China	3,000	1,615	4,615	—	2,224	2,224	
India	—	998	998	—	1,981	1,981	
Asia-Pacific, excluding China and India	3	2,533	2,536	17	2,103	2,120	
Total Asia-Pacific	3,003	5,146	8,149	17	6,308	6,325	
Total revenues	\$ 4,570	\$ 18,137	\$ 22,707	\$ 10,677	\$ 19,547	\$ 30,224	

June 30, 2023			
Intellectual Property Operations	Industrial Operations	Total	
(In thousands)			
Long-lived tangible assets by geographic area:			
United States	\$ 257	\$ 194	\$ 451
Malaysia	—	2,333	2,333
Other foreign countries	—	166	166
Total	\$ 257	\$ 2,693	\$ 2,950

December 31, 2022			
Intellectual Property Operations	Industrial Operations	Total	
(In thousands)			
Long-lived tangible assets by geographic area:			
United States	\$ 324	\$ 302	\$ 626
Malaysia	—	2,703	2,703
Other foreign countries	—	208	208
Total	\$ 324	\$ 3,213	\$ 3,537

16. SUBSEQUENT EVENTS

On July 13, 2023, pursuant to the terms of the Recapitalization Agreement, Starboard converted an aggregate amount of 350,000 shares of Series A Redeemable Convertible Preferred Stock into 9,616,746 shares of common stock, including 27,704 shares of common stock issued in respect of accrued and unpaid dividends.

Further to the terms of the Recapitalization Agreement and in accordance with the terms of the Series B Warrants, on July 13, 2023, Starboard also exercised 31,506,849 of the Company's Series B Warrants through a combination of a "Note Cancellation" and a "Limited Cash Exercise" (each as defined in the Series B Warrants), resulting in the receipt by Starboard of 31,506,849 shares of common stock, the cancellation of \$60.0 million aggregate principal amount of the Senior Secured Notes held by Starboard and the receipt by the Company of aggregate gross proceeds of approximately \$55.0 million.

As a result of the Recapitalization Transactions, Starboard beneficially owns 61,123,595 shares of common stock, representing approximately 61.2% of the common stock based on 99,886,322 shares of common stock issued and outstanding as of July 13, 2023. No shares of Series A Redeemable Convertible Preferred Stock, no Series B Warrants, nor any Senior Secured Notes remain outstanding. Refer to Note 8 for additional information.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read in conjunction with our consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q ("Quarterly Report"). This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these "forward-looking statements" as a result of various factors including the risks we discuss in Item 1A to our Annual Report on Form 10-K for the year ended December 31, 2022, "Risk Factors," and elsewhere herein. For additional information, refer to the section above entitled "Cautionary Note Regarding Forward-Looking Statements."

General

We are an opportunistic capital platform that purchases businesses based on the differentials between public and private market valuations. We use a wide range of transactional and operational capabilities to realize the intrinsic value in the businesses that we acquire. Our ideal transactions include the acquisition of public or private companies, the acquisition of divisions of other companies, or structured transactions that can result in the recapitalization or restructuring of the ownership of a business to enhance value.

We are particularly attracted to complex situations, where value is not fully recognized in the public markets, where values of certain operations are masked by a diversified business mix, or where private ownership has not invested capital necessary to drive long-term value. We aim to operate a transactional platform through which we can initiate a strategic block position in public companies as a path to complete whole company acquisitions or strategic transactions that unlock value. We believe this business model is differentiated from private equity funds, which do not typically own public securities prior to acquiring companies, hedge funds, which do not typically acquire entire businesses, and other acquisition vehicles such as Special Purpose Acquisition Companies, which are narrowly focused on completing one singular, defining acquisition.

We have a strategic relationship with Starboard that has provided, and we expect will continue to provide, us with industry expertise, and access to operating partners and industry experts to evaluate potential acquisition opportunities and enhance the oversight and value creation of such businesses once acquired. Starboard has provided ready access to its extensive network of highly successful industry executives and, as part of our relationship, Starboard assists with sourcing and evaluating appropriate acquisition opportunities.

Our focus is companies with market values in the sub-\$2 billion range and particularly on businesses valued at \$1 billion or less. We are, however, opportunistic, and may pursue acquisitions that are larger under the right circumstance.

Intellectual Property Operations

The Company through its Patent Licensing, Enforcement and Technologies Business invests in IP and related absolute return assets and engage in the licensing and enforcement of patented technologies. Through our Patent Licensing, Enforcement and Technologies Business, operated under our wholly owned subsidiary, Acacia Research Group, LLC, and its wholly-owned subsidiaries (collectively, "ARG"), we are a principal in the licensing and enforcement of patent portfolios, with our operating subsidiaries obtaining the rights in the patent portfolio or purchasing the patent portfolio outright. While we, from time to time, partner with inventors and patent owners, from small entities to large corporations, we assume all responsibility for advancing operational expenses while pursuing a patent licensing and enforcement program, and when applicable, share net licensing revenue with our patent partners as that program matures, on a pre-arranged and negotiated basis. We may also provide upfront capital to patent owners as an advance against future licensing revenue.

Currently, on a consolidated basis, our operating subsidiaries own or control the rights to multiple patent portfolios, which include U.S. patents and certain foreign counterparts, covering technologies used in a variety of industries. We generate revenues and related cash flows from the granting of IP rights for the use of patented technologies that our operating subsidiaries control or own.

We have established a proven track record of licensing and enforcement success with over 1,600 license agreements executed to date, across nearly 200 patent portfolio licensing and enforcement programs. As of June 30, 2023, we have generated gross licensing revenue of approximately \$1.7 billion, and have returned \$858.6 million to our patent partners.

For more information related to our Intellectual Property Operations, refer to additional detailed patent business discussion below.

Industrial Operations

In October 2021, we consummated our first operating company acquisition of Printronix. Printronix is a leading manufacturer and distributor of industrial impact printers, also known as line matrix printers, and related consumables and services. The Printronix business serves a diverse group of customers that operate across healthcare, food and beverage, manufacturing and logistics, and other sectors. This mature technology is known for its ability to operate in hazardous environments. Printronix has a manufacturing site located in Malaysia and third-party configuration sites located in the United States, Singapore and Holland, along with sales and support locations around the world to support its global network of users, channel partners and strategic alliances. This acquisition was made at what we believe to be an attractive purchase price, and we are now supporting existing management in its initiative to reduce costs and operate more efficiently and in its execution of strategic partnerships to generate growth.

For more information related to our Industrial Operations, refer to the section entitled "Industrial Printing Solutions" below.

Recent Business Developments and Trends

Recapitalization

On October 30, 2022, the Company entered into a Recapitalization Agreement (the "Recapitalization Agreement") with the Investors, pursuant to which, among other things, the Company and Starboard agreed to enter into a series of transactions to restructure Starboard's existing investments in the Company in order to simplify the Company's capital structure. Under the Recapitalization Agreement, the Company and Starboard agreed to take certain actions related to the Series A Redeemable Convertible Preferred Stock in connection with the Recapitalization, including submitting a proposal for stockholder approval to remove the "4.89% blocker" provision contained in the Company's Amended and Restated Certificate of Designations (the "Amendment to the Amended and Restated Certificate of Designations"). The Company's stockholders approved the Amendment to the Amended and Restated Certificate of Designations at the Company's annual meeting of stockholders held on May 16, 2023, which became effective on June 30, 2023. Subsequently, and in accordance with the terms contained in the Series A Redeemable Convertible Preferred Stock, as amended, and the Recapitalization Agreement, on July 13, 2023, Starboard completed the Preferred Stock Conversion.

Further to the terms of the Recapitalization Agreement and in accordance with the terms of the Series B Warrants, on July 13, 2023, Starboard completed the Series B Warrants Exercise, the cancellation of \$60.0 million aggregate principal amount of the Senior Secured Notes held by Starboard and the receipt by the Company of aggregate gross proceeds of approximately \$55.0 million.

As a result of the Recapitalization Transactions, Starboard holds 61,123,595 shares of common stock, representing approximately 61.2% of the common stock based on 99,886,322 shares of common stock issued and outstanding as of July 13, 2023 and no shares of Series A Redeemable Convertible Preferred Stock, no Series B Warrants, nor any Senior Secured Notes remain outstanding.

For a detailed description of the Recapitalization and the actions taken and contemplated to be taken in connection therewith, see Notes 1 and 8 to the consolidated financial statements elsewhere herein.

Change of Chief Executive Officer

Since 2021, we have announced various changes to our Board and senior management, including as discussed in Item 1A to our Annual Report on Form 10-K for the year ended December 31, 2022, "*Risk Factors — Risks Related to Our Business, Business Strategy, and Platform*." Recent changes in the Company's management team and board of directors, as well as ongoing litigation related to the Company's former Chief Executive Officer, may be disruptive to, or cause uncertainty in, the Company's business, results of operations and the price of the Company's common stock." Changes in

leadership and key management positions have inherent risks, and there are no assurances that any of our recent changes or future changes will not affect our operations and financial condition.

Acquisitions

In October 2021, we consummated our first operating company acquisition in connection with our acquisition of Printronix. We acquired all of the outstanding stock of Printronix, for a cash purchase price of approximately \$37.0 million, which included an initial \$33.0 million cash payment and a \$4.0 million working capital adjustment. The Company's consolidated financial statements include Printronix's consolidated operations. Refer to Note 1 to the consolidated financial statements elsewhere herein for additional information.

In June 2020 we acquired the Life Sciences Portfolio. In connection with the purchase of the equity securities in the Life Sciences Portfolio, we issued to the Investors \$115.0 million principal amount of our senior secured notes. As of December 31, 2020, all of the equity securities in the Life Sciences Portfolio were transferred to the Company. As of June 30, 2023, we have monetized a majority of the portfolio while retaining an interest in a number of operating businesses, including a controlling interest in one of the companies in the portfolio. Further, some of the businesses in which we continue to hold an interest generate income through the receipt of royalties and milestone payments. Refer to Note 3 to the consolidated financial statements elsewhere herein for more information.

Business Strategy

We intend to grow our company by acquiring additional operating businesses and intellectual property assets. However, we may not complete any acquisitions, and any acquisitions that we complete will be costly and could negatively affect our results of operations, and dilute our stockholders' ownership, or cause us to incur significant expense, and we may not realize the expected benefits of acquisitions.

Inflation

Historically, inflation has not had a significant impact on us or any of our subsidiaries. While insignificant to our consolidated enterprise, during the six months ended June 30, 2023, our Printronix subsidiary experienced some inflation from higher cost of raw materials than in previous years due to higher electronic and electrical and metal components. While Printronix inventory costs have been impacted by these inflationary pressures, up to this point Printronix has generally been able to adjust selling prices in response to these higher costs.

Patent Licensing and Enforcement

Patent Litigation Trial Dates and Related Trials

As of the date of this Quarterly Report, our operating subsidiaries have eight pending patent infringement cases with scheduled trial dates in the next twelve months. Patent infringement trials are components of our overall patent licensing process and are one of many factors that contribute to possible future revenue generating opportunities for us. Scheduled trial dates, as promulgated by the respective court, merely provide an indication of when, in future periods, the trials may occur according to the court's scheduling calendar at a specific point in time. A court may change previously scheduled trial dates. In fact, courts often reschedule trial dates for various reasons that are unrelated to the underlying patent assets and typically for reasons that are beyond our control. While scheduled trial dates provide an indication of the timing of possible future revenue generating opportunities for us, the trials themselves and the immediately preceding periods represent the possible future revenue generating opportunities. These future opportunities can result in varying outcomes. Refer to Item 1A "Risk Factors— Risks Related to our Intellectual Property Business and Industry " of our Annual Report for additional information regarding patent litigation and related risks.

Litigation and Licensing Expense

We expect patent-related legal expenses to continue to fluctuate from period to period based on the factors summarized herein, in connection with future trial dates, international enforcement, strategic patent portfolio prosecution and our current and future patent portfolio investment, prosecution, licensing and enforcement activities. Refer to Item 1A "Risk Factors" of our Annual Report for additional information regarding litigation and licensing expense risk.

Investments in Patent Portfolios

With respect to our licensing, enforcement and overall business, neither we nor our operating subsidiaries invent new technologies or products; rather, we depend upon the identification and investment in patents, inventions and companies that own IP through our relationships with inventors, universities, research institutions, technology companies and others. If our operating subsidiaries are unable to maintain those relationships and identify and grow new relationships, then we may not be able to identify new technology-based patent opportunities for sustainable revenue and /or revenue growth.

Our current or future relationships may not provide the volume or quality of technologies necessary to sustain our licensing, enforcement and overall business. In some cases, universities and other technology sources compete against us as they seek to develop and commercialize technologies. Universities may receive financing for basic research in exchange for the exclusive right to commercialize resulting inventions. These and other strategies employed by potential partners may reduce the number of technology sources and potential clients to whom we can market our solutions. If we are unable to maintain current relationships and sources of technology or to secure new relationships and sources of technology, such inability may have a material adverse effect on our revenues, operating results, financial condition and ability to maintain our licensing and enforcement business.

Patent Portfolio Intake

One of the significant challenges in the intellectual property industry continues to be quality patent intake due to the challenges and complexity associated with the current patent environment.

During the six months ended June 30, 2023 and during 2022, we did not acquire any new patent portfolios. During 2021, we acquired one new patent portfolio consisting of Wi-Fi 6 standard essential patents. In 2020, we acquired five new patent portfolios consisting of (i) flash memory technology, (ii) voice activation and control technology, (iii) wireless networks, (iv) internet search, advertising and cloud computing technology and (v) GPS navigation. The patents and patent rights acquired in 2021 and 2020 have estimated economic useful lives of approximately five years.

Industrial Printing Solutions

Our Printronix subsidiary is a worldwide leader in multi-technology supply-chain printing solutions for a variety of industries, including manufacturing, transportation and logistics, retail distribution, food and beverage distribution, and pharmaceutical distribution. Printronix's line matrix printers are used for mission critical applications within these industries, including labeling and inventory management, build sheets, invoicing, manifests and bills of lading, and reporting. In China, India and other developing countries in Asia and Africa, our printers are also prevalent in the banking and government sectors. Printronix has manufacturing, configuration and/or distribution sites located in Malaysia, the United States, Singapore, China and the Netherlands, along with sales and support locations around the world to support its global network of users, channel partners, and strategic alliances. Printronix designs and manufactures printers and related consumable products for various industrial printing applications. Printers consist of hardware and embedded software and may be sold with maintenance service agreements, which are serviced by outside contractors. Consumable products include inked ribbons which are used within Printronix's printers. Printronix's products are primarily sold through Printronix's global network of channel partners, such as dealers and distributors, to end-users.

Operating Activities

Intellectual Property Operations

Our Intellectual Property Operations revenues historically have fluctuated quarterly, and can vary significantly period to period, based on a number of factors including the following:

- the dollar amount of agreements executed each period, which can be driven by the nature and characteristics of the technology or technologies being licensed and the magnitude of infringement associated with a specific licensee;
- the specific terms and conditions of agreements executed each period including the nature and characteristics of rights granted, and the periods of infringement or term of use contemplated by the respective payments;
- fluctuations in the total number of agreements executed each period;

- the number of, timing, results and uncertainties associated with patent licensing negotiations, mediations, patent infringement actions, trial dates and other enforcement proceedings relating to our patent licensing and enforcement programs;
- the relative maturity of licensing programs during the applicable periods;
- other external factors, including the periodic status or results of ongoing negotiations, the status or results of ongoing litigations and appeals, actual or perceived shifts in the regulatory environment, impact of unrelated patent related judicial proceedings and other macroeconomic factors;
- the willingness of prospective licensees to settle significant patent infringement cases and pay reasonable license fees for the use of our patented technology, as such infringement cases approached a court determined trial date; and
- fluctuations in overall patent portfolio related enforcement activities which are impacted by the portfolio intake challenges discussed above.

Our management does not attempt to manage for smooth sequential periodic growth in revenues from period to period, and therefore, periodic results can be uneven. Unlike most operating businesses and industries, licensing revenues not generated in a current period are not necessarily foregone but, depending on whether negotiations, litigation or both continue into subsequent periods, and depending on a number of other factors, such potential revenues may be pushed into subsequent annual periods.

Industrial Operations

Refer to "Industrial Printing Solutions" above for information related to Printronix's operating activities.

In addition to the following results of operations discussion, more information related to our Intellectual Property Operations and Industrial Operations segment revenues and cost of revenues, may be found in Note 15 to the consolidated financial statements elsewhere herein and Note 2 included in our Annual Report on Form 10-K, for the year ended December 31, 2022, as filed with the SEC on March 17, 2023.

Results of Operations

Summary of Results of Operations

	Three Months Ended June 30,				Six Months Ended June 30,			
	2023	2022	\$ Change	% Change	2023	2022	\$ Change	% Change
(In thousands, except percentage change values)								
Total revenues	\$ 7,904	\$ 16,717	\$ (8,813)	(53 %)	\$ 22,707	\$ 30,224	\$ (7,517)	(25 %)
Total costs and expenses	20,433	22,387	(1,954)	(9 %)	44,560	44,402	158	0 %
Operating loss	(12,529)	(5,670)	(6,859)	121 %	(21,853)	(14,178)	(7,675)	54 %
Total other (expense) income	(7,895)	(42,020)	34,125	(81 %)	13,359	(121,656)	135,015	(111 %)
Loss before income taxes	(20,424)	(47,690)	27,266	(57 %)	(8,494)	(135,834)	127,340	(94 %)
Income tax benefit (expense)	1,645	200	1,445	723 %	(838)	15,078	(15,916)	(106 %)
Net loss attributable to Acacia Research Corporation	(18,779)	(61,503)	42,724	(69 %)	(9,332)	(134,769)	125,437	(93 %)

Results of Operations - three months ended June 30, 2023 compared with the three months ended June 30, 2022

Total revenues decreased \$8.8 million to \$7.9 million for the three months ended June 30, 2023, as compared to \$16.7 million for the three months ended June 30, 2022, due to a decrease in our Intellectual Property Operations revenues and Industrial Operations revenues. ARG executed one new license agreement during the second quarter of 2023, a decrease of two versus the comparable prior period. Industrial Operations revenues decreased due to lower units of printer sold compared to the comparable prior period. Refer to "Industrial Operations – Revenues" below for further discussion.

Loss before income taxes was \$20.4 million for the three months ended June 30, 2023, as compared to loss of \$47.7 million in the comparable prior period. The decrease in net loss was comprised of the change in total revenues described above and other changes in operating expenses and other income or expense as follows:

- Inventor royalties decreased \$45,000, from \$190,000 to \$145,000 in 2023, primarily due to license agreement activity and related revenues generated with inventor royalty obligations. Refer to "Intellectual Property Operations – *Cost of Revenues*" below for further discussion.
- Contingent legal fees decreased \$743,000, from \$755,000 to \$12,000 in 2023, primarily due to the decrease in ARG's revenues described above. Refer to "Intellectual Property Operations – *Cost of Revenues*" below for further discussion.
- Litigation and licensing expenses increased \$1.2 million, from \$1.1 million to \$2.3 million in 2023, primarily due to a net increase in litigation support and third-party technical consulting expenses associated with ongoing litigation. Refer to "Intellectual Property Operations – *Cost of Revenues*" below for further discussion.
- Printronix cost of sales, engineering and development expenses, and sales and marketing expenses decreased \$1.0 million, from \$7.0 million to \$6.0 million in 2023, primarily due to decrease in related revenues. Refer to "Industrial Operations – *Cost of Revenues*" and "Operating Expenses" below for further discussion.
- General and administrative expenses decreased \$1.3 million, from \$10.7 million to \$9.4 million in 2023, primarily due to lower parent company and Intellectual Property Operations costs including compensation expense for share-based awards, variable performance-based compensation costs, payroll costs, and our Industrial Operations general and administrative costs for the second quarter of 2023, which were partially offset by higher parent company and Intellectual Property Operations legal and consulting business development related expenses. Refer to "*General and Administrative Expenses*" below for further detail and discussion.
- Compensation expense for share-based awards, included in general and administrative expenses above, decreased \$209,000, from \$1.1 million to \$874,000 in 2023, primarily due to forfeitures for terminated employees, which includes a partial offset by restricted stock and option grants issued to employees and the Board of Directors in 2023 and 2022.
- Unrealized gain from the change in fair value of our equity securities was \$6.6 million in 2023, as compared to an unrealized loss of \$57.6 million in the comparable prior period. The unrealized loss and gain were derived from our Life Sciences Portfolio and our trading securities portfolio. The prior period unrealized loss primarily relates to valuation decreases from one Life Sciences Portfolio. Refer to "*Equity Securities Investments*" below for further discussion.
- Realized loss from the sale of our equity securities was \$8.0 million in 2023, as compared to a realized gain of \$11.5 million in the comparable prior period. The realized loss and gain were derived from our trading securities portfolio. The current period realized loss primarily relates to sales activity from one trading securities portfolio. Refer to "*Equity Securities Investments*" below for further discussion.
- We recognized earnings on equity investment in joint venture of \$42.1 million in 2022, which included two milestones and accrued interest related to our Life Sciences Portfolio. Refer to "*Equity Securities Investments*" below for a detailed discussion.
- We recognized an unrealized loss of \$9.9 million from the fair value measurements of the Series B warrants and the embedded derivative in 2023, as compared to an unrealized loss of \$35.1 million from the Series A and Series B warrants and embedded derivative in the comparable prior period. Refer to Notes 8 and 9 to the consolidated financial statements elsewhere herein for additional information regarding the Starboard Securities and fair value measurements.
- Gain on foreign currency exchange was \$15,000 in 2023, as compared to a loss on foreign currency exchange of \$1.8 million in the comparable prior period. The gains and losses were primarily derived from our foreign cash accounts exposed to fluctuations in foreign currency exchange rates between the U.S. dollar and the British Pound.

- Interest expense on Senior Secured Notes decreased \$1.0 million, from \$1.9 million to \$900,000 in 2023, due to decreased interest expense related to lower principal amount of Senior Secured Notes outstanding in 2023. Refer to Note 8 to the consolidated financial statements elsewhere herein for additional information regarding the Starboard Senior Secured Notes.
- Interest income and other, net was \$4.3 million in 2023, as compared to \$863,000 in the comparable prior period, mainly due to an increase in interest and dividend income from our cash equivalents. Refer to Note 2 included in our Annual Report on Form 10-K for the year ended December 31, 2022, as filed with the SEC on March 17, 2023 for additional information regarding our cash and cash equivalents and investments in equity securities.

Results of Operations - six months ended June 30, 2023 compared with the six months ended June 30, 2022

Total revenues decreased \$7.5 million to \$22.7 million for the six months ended June 30, 2023, as compared to \$30.2 million for the six months ended June 30, 2022, due to a decrease in our Intellectual Property Operations revenues and Industrial Operations revenues. ARG executed 5 fewer license agreements during the six months ended June 30, 2023, which contributed to Intellectual Property Operations revenues decreasing by \$6.1 million. Refer to "Investments in Patent Portfolios" above for additional information regarding the impact of portfolio acquisition trends on current and future licensing and enforcement related revenues. The decrease in Industrial Operations revenue of \$1.4 million is due to lower units of printer sold. Refer to "Industrial Operations – Revenues" below for further detailed discussion.

Loss before income taxes was \$8.5 million for the six months ended June 30, 2023, as compared to loss of \$135.8 million in the comparable prior period. The net decrease was comprised of the change in total revenues described above and other changes in operating expenses and other income or expense as follows:

- Inventor royalties increased \$6,000, from \$360,000 to \$366,000 in 2023, primarily due to license agreement activity and related revenues generated with inventor royalty obligations. Refer to "Intellectual Property Operations – Cost of Revenues" below for further discussion.
- Contingent legal fees decreased \$760,000, from \$1.3 million to \$544,000 in 2023, primarily due to the change in Intellectual Property Operations revenues described above. Refer to "Intellectual Property Operations – Cost of Revenues" below for further discussion.
- Litigation and licensing expenses increased \$1.3 million, from \$2.3 million to \$3.6 million in 2023, primarily due to a net increase in litigation support and third-party technical consulting expenses associated with ongoing litigation. Refer to "Intellectual Property Operations – Cost of Revenues" below for further discussion.
- Printronix cost of sales, engineering and development expenses, and sales and marketing expenses decreased \$83,000, from \$13.4 million to \$13.3 million. Refer to "Industrial Operations – Cost of Revenues" and "Operating Expenses" below for further discussion.
- General and administrative expenses decreased \$309,000, from \$21.8 million to \$21.5 million in 2023, primarily due to lower parent company and Intellectual Property Operations costs including, compensation expense for share-based awards, variable performance-based compensation costs, personnel costs, and our Industrial Operations general and administrative costs offset partially by an increase in parent company consulting and legal fees related to the termination of the former Chief Executive Officer and SEC matters, accounting fees, and severance expense. Refer to "General and Administrative Expenses" below for further detail and discussion.
- Compensation expense for share-based awards, included in general and administrative expenses above, decreased \$906,000, from \$2.3 million to \$1.4 million in 2023, primarily due to forfeitures for terminated employees, which includes a partial offset by restricted stock and option grants issued to employees and the Board in 2023 and 2022.
- Unrealized gain from the change in fair value of our equity securities was \$10.0 million in 2023, as compared to an unrealized loss of \$229.9 million in the comparable prior period. The unrealized gain and loss were derived from our Life Sciences Portfolio and trading securities portfolio. The prior period unrealized loss primarily relates to valuation decreases from one Life Sciences Portfolio. Refer to "Equity Securities Investments" below for further discussion.

- Realized loss from the sale of equity securities was \$9.4 million in 2023, as compared to a realized gain of \$78.4 million in the comparable prior period. The realized loss was derived from the sales activity from our trading securities portfolio. Refer to "Equity Securities Investments" below for further discussion.
- We recognized earnings on equity investment in joint venture of \$42.1 million in 2022, which included two milestones and accrued interest related to our Life Sciences Portfolio. Refer to "Equity Securities Investments" below for a detailed discussion.
- Unrealized gain from the Series B warrants and the embedded derivative fair value measurements was \$6.7 million in 2023, as compared to an unrealized loss of \$7.0 million from the Series A and Series B warrants and embedded derivative fair value measurements in the comparable prior period. Refer to Notes 8 and 9 to the consolidated financial statements elsewhere herein for additional information regarding the Starboard Securities and fair value measurements..
- Gain on foreign currency exchange was \$95,000 in 2023, as compared to a loss on foreign currency exchange of \$2.6 million in the comparable prior period. The gains and losses were primarily derived from our foreign cash accounts exposed to fluctuations in foreign currency exchange rates between the U.S. dollar and the British Pound.
- Interest expense on Senior Secured Notes decreased \$2.7 million, from \$4.5 million to \$1.8 million in 2023, due to decreased interest expense related to lower principal amount of Senior Secured Notes outstanding in 2023. Refer to Note 8 to the consolidated financial statements elsewhere herein for additional information regarding the Starboard Senior Secured Notes.
- Interest income and other, net was \$7.7 million in 2023, as compared to \$1.9 million in the comparable prior period, mainly due to an increase in interest income from our cash equivalents. Refer to Note 2 included in our Annual Report on Form 10-K for the year ended December 31, 2022, as filed with the SEC on March 17, 2023 for additional information regarding our cash and cash equivalents and investments in equity securities.

Intellectual Property Operations

Revenues

ARG's revenue activity for the periods presented included the following:

	Three Months Ended June 30,				Six Months Ended June 30,			
	2023	2022	\$ Change	% Change	2023	2022	\$ Change	% Change
(In thousands, except percentage change values and count totals)								
Paid-up license revenue agreements	\$ 75	\$ 7,360	\$ (7,285)	(99 %)	\$ 3,975	\$ 9,553	\$ (5,578)	(58 %)
Recurring license revenue agreements	319	702	(383)	(55 %)	595	1,124	(529)	(47 %)
Total revenues	<u>\$ 394</u>	<u>\$ 8,062</u>	<u>\$ (7,668)</u>	<u>(95 %)</u>	<u>\$ 4,570</u>	<u>\$ 10,677</u>	<u>\$ (6,107)</u>	<u>(57 %)</u>
New license agreements executed	1	3	(2)	(67 %)	5	12	(7)	(58 %)
Licensing and enforcement programs generating revenues	4	6	(2)	(33 %)	6	8	(2)	(25 %)

For the periods presented above, the majority of the revenue agreements executed during the relevant period provided for the payment of one-time, paid-up license fees in consideration for the grant of certain IP Rights for patented technology owned by our operating subsidiaries. These rights were primarily granted on a perpetual basis, extending until the expiration of the underlying patents. Paid-up revenue decreased \$7.3 million for the three months ended June 30, 2023 and \$5.6 million for the six months ended June 30, 2023 due to a decrease in the number of agreements executed. Recurring revenue, that provides for quarterly sales-based license fees, decreased \$383,000 for the three months ended June 30, 2023 and \$529,000 for the six months ended June 30, 2023 from various on-going license arrangements.

Refer to Note 2 included in our Annual Report on Form 10-K, for the year ended December 31, 2022, as filed with the SEC on March 17, 2023 for additional information regarding our revenue arrangements and related concentrations for the periods presented herein.

Refer to "Investments in Patent Portfolios" above for information regarding the impact of portfolio acquisition trends on current and future licensing and enforcement related revenues.

Cost of Revenues

	Three Months Ended June 30,				Six Months Ended June 30,			
	2023	2022	\$ Change	% Change	2023	2022	\$ Change	% Change
(In thousands, except percentage change values)								
Inventor royalties	\$ 145	\$ 190	\$ (45)	(24 %)	\$ 366	\$ 360	\$ 6	2 %
Contingent legal fees	12	755	(743)	(98 %)	544	1,304	(760)	(58 %)
Litigation and licensing expenses	2,253	1,089	1,164	107 %	3,637	2,333	1,304	56 %
Amortization of patents	2,600	2,600	—	0 %	5,201	5,201	—	0 %
Total	\$ 5,010	\$ 4,634	\$ 376	8 %	\$ 9,748	\$ 9,198	\$ 550	6 %

Refer to detailed change explanations above for the three and six months ended June 30, 2023 and 2022 regarding cost of revenues for our Intellectual Property Operations.

The economic terms of patent portfolio related partnering agreements and contingent legal fee arrangements, if any, including royalty obligations, if any, royalty rates, contingent fee rates and other terms and conditions, vary across the patent portfolios owned or controlled by our operating subsidiaries. In certain instances, we have invested in certain patent portfolios without future patent partner royalty obligations. The costs associated with the forementioned obligations fluctuate period to period, based on the amount of revenues recognized each period, the terms and conditions of revenue agreements executed each period and the mix of specific patent portfolios, with varying economic terms and conditions, generating revenues each period.

Litigation and licensing expenses include patent-related litigation, enforcement and prosecution costs incurred by law firms and external patent attorneys engaged on either an hourly basis or a contingent fee basis. Litigation and licensing expenses also includes third-party patent research, development, patent prosecution and maintenance fees, re-exam and inter partes reviews, consulting and other costs incurred in connection with the licensing and enforcement of patent portfolios. Refer to "Investments in Patent Portfolios" above for additional information regarding the impact of portfolio acquisition trends on current and future licensing and enforcement related revenues.

Industrial Operations

Revenues

Printronix's net revenues for the periods presented included the following:

	Three Months Ended June 30,				Six Months Ended June 30,			
	2023	2022	\$ Change	% Change	2023	2022	\$ Change	% Change
(In thousands, except percentage change value)								
Printers and parts	\$ 2,324	\$ 3,662	\$ (1,338)	(37 %)	\$ 6,788	\$ 7,916	\$ (1,128)	(14 %)
Consumable products	4,328	4,214	114	3 %	9,498	9,598	(100)	(1 %)
Services	858	779	79	10 %	1,851	2,033	(182)	(9 %)
Total	\$ 7,510	\$ 8,655	\$ (1,145)	(13 %)	\$ 18,137	\$ 19,547	\$ (1,410)	(7 %)

For the periods presented above, the majority of the contract agreements executed in the relevant period include various combinations of tangible products (which include printers, consumables and parts) and services. Printers and parts decreased \$1.3 million for the three months ended June 30, 2023 and \$1.1 million for the six months ended June 30, 2023 due to a decrease in the number of printer units sold. Refer to Note 2 included in our Annual Report on Form 10-K, for the year ended December 31, 2022, as filed with the SEC on March 17, 2023 for additional information regarding Printronix's revenue arrangements and related concentrations. Refer to "Industrial Printing Solutions" above for additional information related to Printronix's operating activities.

Cost of Revenues

	Three Months Ended June 30,				Six Months Ended June 30,			
	2023	2022	\$ Change	% Change	2023	2022	\$ Change	% Change
(In thousands, except percentage change values)								
Cost of sales - industrial operations	\$ 3,933	\$ 4,592	\$ (659)	(14 %)	\$ 9,153	\$ 8,784	\$ 369	4 %

Refer to detailed change explanations above for the three and six months ended June 30, 2023 and 2022 regarding cost of sales for our Industrial Operations. The increase in Printronix's cost of sales for the six months ended June 30, 2023 is due to under absorption of overhead cost. Refer to Note 2 included in our Annual Report on Form 10-K, for the year ended December 31, 2022, as filed with the SEC on March 17, 2023 for additional information regarding Printronix's cost of sales.

Operating Expenses

	Three Months Ended June 30,				Six Months Ended June 30,			
	2023	2022	\$ Change	% Change	2023	2022	\$ Change	% Change
(In thousands, except percentage change values)								
Engineering and development expenses - industrial operations	\$ 205	\$ 145	\$ 60	41 %	\$ 421	\$ 335	\$ 86	26 %
Sales and marketing expenses - industrial operations	1,859	2,294	(435)	(19 %)	3,772	4,310	(538)	(12 %)
General and administrative costs - intellectual property operations	1,602	1,807	(205)	(11 %)	3,499	3,523	(24)	(1 %)
General and administrative costs - industrial operations	2,026	2,686	(660)	(25 %)	4,744	5,541	(797)	(14 %)
Parent general and administrative expenses	5,798	6,229	(431)	(7 %)	13,223	12,711	512	4 %
Total general and administrative expenses	9,426	10,722	(1,296)	(12 %)	21,466	21,775	(309)	(1 %)
Total	\$ 11,490	\$ 13,161	\$ (1,671)	(13 %)	\$ 25,659	\$ 26,420	\$ (761)	(3 %)

The operating expenses table above includes the Company's general and administrative expenses by operation and Printronix's engineering and development expenses and sales and marketing expenses. Refer to Note 2 to the consolidated financial statements elsewhere herein for additional information regarding Printronix's operating expenses.

General and Administrative Expenses

A summary of the main drivers of the change in general and administrative expenses is as follows:

	Three Months Ended June 30, 2023 vs. 2022	Six Months Ended June 30, 2023 vs. 2022
	(In thousands)	
Personnel costs and board fees	\$ (330)	\$ (475)
Variable performance-based compensation costs	(462)	(848)
Other general and administrative costs	424	2,376
General and administrative costs - industrial operations	(661)	(798)
Compensation expense for share-based awards	(209)	(906)
Non-recurring employee severance costs	(59)	341
Total change in general and administrative expenses	\$ (1,296)	\$ (309)

General and administrative expenses include employee compensation and related personnel costs, including variable performance based compensation and compensation expense for share-based awards, office and facilities costs, legal and accounting professional fees, public relations, stock administration, business development, fixed asset depreciation, amortization of Industrial Operations intangible assets, state taxes based on gross receipts and other corporate costs.

The decrease in personnel cost and board fees, variable performance-based compensation costs and compensation expense for share-based awards was primarily due to a decrease in headcount and related costs. The increases in other general and administrative costs, which relates to our parent company and Intellectual Property Operations business, were primarily due to parent company consulting and legal fees related to the termination of the former Chief Executive Officer and SEC matters. The decrease in General and administrative costs of Industrial Operations is due to Printronix's initiative to reduce costs and operate more efficiently. Non-recurring employee severance costs fluctuate based on the severance arrangements of terminated employees. Refer to additional general and administrative change explanations above.

Other Income/Expense

Equity Securities Investments

	Three Months Ended June 30,				Six Months Ended June 30,			
	2023	2022	\$ Change	% Change	2023	2022	\$ Change	% Change
(In thousands, except percentage change values)								
Change in fair value of equity securities	\$ 6,617	\$ (57,647)	\$ 64,264	(111 %)	\$ 9,960	\$ (229,850)	\$ 239,810	(104 %)
(Loss) gain on sale of equity securities	(7,999)	11,498	(19,497)	(170 %)	(9,360)	78,374	(87,734)	(112 %)
Earnings on equity investment in joint venture	—	42,085	(42,085)	(100 %)	—	42,085	(42,085)	(100 %)
Total net realized and unrealized (loss) gain	\$ (1,382)	\$ (4,064)	\$ 2,682	(66 %)	\$ 600	\$ (109,391)	\$ 109,991	(101 %)

Our equity securities investments, including the Life Sciences Portfolio and trading securities portfolio, are recorded at fair value at each balance sheet date. During the fourth quarter of 2022, Acacia fully exited its position in Oxford Nanopore. Refer to periodic change explanations above. Refer to Note 3 to the consolidated financial statements elsewhere herein for additional information regarding our investment in the Life Sciences Portfolio and other equity securities.

Our year-to-date results included an unrealized gain from the change in fair value of our equity securities as compared to an unrealized loss in the comparable prior period, and included realized loss from the sale of our equity securities as compared to an realized gain in the comparable prior period. These changes were derived from our Life Sciences Portfolio and trading securities portfolio. The current period unrealized gain primarily relates to one Life Sciences Portfolio and trading securities portfolio. The current period realized loss primarily relates to sales activity from trading securities portfolio.

During 2021, we began to recognize earnings on our equity investment in joint venture, which is part of the Life Sciences Portfolio. During the second quarter of 2022, we recorded consolidated earnings on equity investment of \$42.1 million, including two milestones and accrued interest that were due in 2022. Refer to Notes 3 to the consolidated financial statements elsewhere herein for additional information.

Income Taxes

	Three Months Ended June 30,				Six Months Ended June 30,			
	2023	2022	\$ Change	% Change	2023	2022	\$ Change	% Change
(In thousands, except percentage change values)								
Income tax benefit (expense)	\$ 1,645	\$ 200	\$ 1,445	723 %	\$ (838)	\$ 15,078	\$ (15,916)	(106 %)
Effective tax rate	(8)%	— %	n/a	(8) %	10 %	(11)%	n/a	21 %

Our income tax benefit for the three months ended June 30, 2023 is primarily attributable to recognizing an income tax benefit on losses incurred in jurisdictions for which a valuation allowance is not needed. Our income tax expense for the six months ended June 30, 2023 is primarily attributable to foreign taxes withheld and state income taxes. Our income tax benefit for the three and six months ended June 30, 2022 primarily reflects the decrease in deferred tax liabilities attributable to the unrealized loss recorded in the period.

Our 2023 effective tax rate in each period was lower than the U.S. federal statutory rate primarily due to expiration of foreign tax credits changes in valuation allowance, as well as non-deductible items. Our 2022 effective tax rate in each period was lower than the U.S. federal statutory rate primarily due to the change in valuation allowance, as well as non-deductible items. The effective tax rate may be subject to fluctuations during the year as new information is obtained which may affect the assumptions used to estimate the effective tax rate, including factors such as expected utilization of net

operating loss carryforwards, changes in or the interpretation of tax laws in jurisdictions where the Company conducts business, the Company's expansion into new states or foreign countries, and the amount of valuation allowances against deferred tax assets.

The Company has recorded a partial valuation allowance against our net deferred tax assets as of June 30, 2023 and December 31, 2022. Refer to Note 2 to the consolidated financial statements elsewhere herein for additional income tax information.

Liquidity and Capital Resources

General

Our foreseeable material cash requirements as of June 30, 2023, are recognized as liabilities or generally are otherwise described in Note 11, "Commitments and Contingencies," to the consolidated financial statements included elsewhere herein. Our most significant liabilities as reflected on our balance sheet as of June 30, 2023 include the Senior Secured Notes and, because of certain provisions in the related agreements that provide for net cash settlement upon a change in control, the Series B Warrants. On July 13, 2023, in accordance with the terms of the Recapitalization Agreement, Starboard completed the Series B Warrants Exercise and pursuant to the Series B Warrants Exercise, the Company cancelled \$60.0 million aggregate principal amount of Senior Secured Notes held by Starboard and received aggregate gross proceeds of approximately \$55.0 million. At the closing of the Series B Warrants Exercise, the Company paid to Starboard an aggregate amount of \$66.0 million. Upon the Series B Warrants Exercise, the Investors exercised the Series B Warrants at a reduced price and Company issued an aggregate of 31,506,849 shares of the Company's common stock to the Investors in consideration of their cash payment and cancellation of any outstanding Senior Secured Notes. For additional information, see Note 8, "Starboard Investment" to the consolidated financial statements included elsewhere herein.

Cash requirements are generally derived from our operating and investing activities including expenditures for working capital (discussed below), human capital, business development, investments in equity securities and intellectual property, and business combinations. Our facilities lease obligations, guarantees and certain contingent obligations are further described in Note 11 to the consolidated financial statements. Historically, we have not entered into off-balance sheet financing arrangements. At June 30, 2023, we had unrecognized tax benefits, as further described in Note 2 to the consolidated financial statements.

Certain of our operating subsidiaries are often required to engage in litigation to enforce their patents and patent rights. In connection with any of our operating subsidiaries' patent enforcement actions, it is possible that a defendant may request and/or a court may rule that an operating subsidiary has violated statutory authority, regulatory authority, federal rules, local court rules, or governing standards relating to the substantive or procedural aspects of such enforcement actions. In such event, a court may issue monetary sanctions against us or our operating subsidiaries or award attorney's fees and/or expenses to a defendant(s), which could be material.

At June 30, 2023, our primary sources of liquidity are cash and cash equivalents on hand, cash generated from our operating activities, and borrowings in connection with the Senior Secured Notes (discussed in Note 8 to the consolidated financial statements elsewhere herein). Our cash and cash equivalents on hand includes proceeds of the recently completed Rights Offering and Concurrent Private Rights Offering at June 30, 2023. We satisfied our obligations under the existing Senior Secured Notes on July 13, 2023 and made the Recapitalization Payment with cash on hand pursuant to the Series B Warrants Exercise.

Furthermore, we intend to grow our company by acquiring additional operating businesses and intellectual property assets. We expect to finance such acquisitions through cash on hand or by engaging in equity or debt financing.

Our management believes that our cash and cash equivalent balances, cash flows from operations and the transactions taken and contemplated in connection with the Recapitalization will be sufficient to meet our cash requirements through at least twelve months from the date of this Quarterly report and for the foreseeable future. We may, however, encounter unforeseen difficulties that may deplete our capital resources more rapidly than anticipated, including those set forth under Item 1A, "Risk Factors" of our Annual Report. Any efforts to seek additional funding could be made through issuances of equity or debt, or other external financing. However, additional funding may not be available to us on favorable terms, or at all. The capital and credit markets have experienced extreme volatility and disruption in recent years, and the volatility and impact of the disruption may continue. At times during this period, the volatility and disruption has reached unprecedented levels. In several cases, the markets have exerted downward pressure on stock prices and credit capacity for certain issuers,

and the commercial paper markets may not be a reliable source of short-term financing for us. If we fail to obtain additional financing when needed, we may not be able to execute our business plans and our business, conducted by our operating subsidiaries, may suffer.

Cash, Cash Equivalents and Investments

Our consolidated cash, cash equivalents and equity securities totaled \$408 million at June 30, 2023, compared to \$349.4 million at December 31, 2022.

Cash Flows Summary

The net change in cash and cash equivalents and restricted cash for the periods presented was comprised of the following:

	Six Months Ended June 30,	
	2023	2022
	(In thousands)	
Net cash (used in) provided by:		
Operating activities	\$ (19,122)	\$ (17,553)
Investing activities	9,218	78,547
Financing activities	77,322	(106,410)
Effect of exchange rates on cash and cash equivalents	(16)	—
Increase (decrease) in cash and cash equivalents	<u>\$ 67,402</u>	<u>\$ (45,416)</u>

Cash Flows from Operating Activities

Cash flows from operating activities were comprised of the following for the periods presented:

	Six Months Ended June 30,	
	2023	2022
	(In thousands)	
Net loss including noncontrolling interests in subsidiaries	\$ (9,332)	\$ (120,756)
Adjustments to reconcile net loss including noncontrolling interests in subsidiaries to net cash used in operating activities:		
Depreciation and amortization	6,789	6,777
Amortization of debt discount and issuance costs	—	56
Change in fair values Series A redeemable convertible preferred stock embedded derivatives, Series A warrants and Series B warrants	(6,716)	7,048
Compensation expense for share-based awards	1,351	2,257
(Gain) loss on foreign currency exchange	(95)	2,627
Change in fair value of equity securities	(9,960)	229,850
Gain (loss) on sale of equity securities	9,360	(78,374)
Earnings on equity investment in joint venture	—	(42,085)
Deferred income taxes	(617)	(15,500)
Changes in assets and liabilities:		
Accounts receivable	2,629	(4,339)
Inventories	216	(3,125)
Prepaid expenses and other assets	(1,765)	(3,135)
Accounts payable and accrued expenses	(10,624)	723
Royalties and contingent legal fees payable	(120)	118
Deferred revenue	(238)	305
Net cash used in operating activities	<u>\$ (19,122)</u>	<u>\$ (17,553)</u>

Cash receipts from ARG's licensees totaled \$4.8 million and \$2.7 million for the six months ended June 30, 2023 and 2022, respectively. Cash receipts from Printronix's customers totaled \$19.9 million and \$20.9 million for the six months ended June 30, 2023 and 2022, respectively. The fluctuations in cash receipts for the periods presented primarily reflects the corresponding fluctuations in revenues recognized during the same periods, as described above, and the related timing of payments received from licensees and customers.

Our reported cash used in operations for the six months ended June 30, 2023 was \$19.1 million, compared to \$17.6 million cash provided by operations in the comparable prior period. The increase in cash used in operations was primarily due to net outflows from the total changes in assets and liabilities (refer to *Working Capital* discussion below), inventory related purchases and royalties and contingent legal fees related payments, and by the total change in net income (described above) and related noncash adjustments.

Working Capital

Our working capital related to cash flows from operating activities at June 30, 2023 increased to \$23.6 million, compared to \$15.1 million at December 31, 2022, which was comprised of the changes in assets and liabilities presented above. The increase is primarily due to change in prepaid expenses and other current assets and accrued compensation, which is related to the timing of the insurance payments and severance accruals, partially offset by decrease in accounts receivable, accounts payable and accrued expenses and other current liabilities, which is related to legal fees and installments of the accrued patent cost (refer to Note 6).

Cash Flows from Investing Activities

Cash flows from investing activities were comprised of the following for the periods presented:

	Six Months Ended June 30,	
	2023	2022
	(In thousands)	
Patent acquisition	\$ —	\$ (5,000)
Purchases of equity securities	(5,843)	(107,537)
Sales of equity securities	15,198	191,494
Purchases of property and equipment	(137)	(410)
Net cash provided by investing activities	\$ 9,218	\$ 78,547

Cash flows from investing activities for the six months ended June 30, 2023 decreased to \$9.2 million, as compared to cash flow of \$78.5 million in the comparable prior period, primarily due to net cash inflows from our Life Sciences Portfolio and trading securities portfolio equity securities transactions in 2023. Refer to "Other Income/Expense – *Equity Securities Investments*" above for additional information.

Cash Flows from Financing Activities

Cash flows from financing activities included the following for the periods presented:

	Six Months Ended June 30,	
	2023	2022
	(In thousands)	
Repurchase of common stock	\$ —	\$ (39,508)
Paydown of Senior Secured Notes	—	(65,000)
Dividend on Series A Redeemable Convertible Preferred Stock	(1,400)	(1,399)
Taxes paid related to net share settlement of share-based awards	(595)	(503)
Proceeds from Rights Offering	79,111	—
Proceeds from exercise of stock options	206	—
Net cash provided by (used in) financing activities	\$ 77,322	\$ (106,410)

Cash inflows from financing activities for the six months ended June 30, 2023 increased to \$77.3 million, as compared to cash outflow of \$106.4 million in the comparable prior period, primarily due to activity related to the Rights Offering and Concurrent Private Rights Offering (refer to Note 8).

On October 30, 2022, the Company entered into a Recapitalization Agreement with Starboard and the Investors. On July 13, 2023, Starboard completed the Series B Warrants Exercise through a combination of a "Note Cancellation" and a "Limited Cash Exercise." Refer to Note 8 to the consolidated financial statements elsewhere herein for additional information.

Critical Accounting Estimates

Our consolidated financial statements are prepared in conformity with accounting principles generally accepted in the United States of America. In preparing these financial statements, we make assumptions, judgments and estimates that involve a significant level of estimation uncertainty and have had or are reasonably likely to have a material impact on our financial condition or results of operations. We base our assumptions, judgments and estimates on historical experience and various other factors that we believe to be reasonable under the circumstances. Actual results could differ materially from these estimates under different assumptions or conditions. On a regular basis, we evaluate our assumptions, judgments and estimates and make changes accordingly.

We believe that of the significant accounting policies discussed in Note 2 included in our Annual Report on Form 10-K, for the year ended December 31, 2022, as filed with the SEC on March 17, 2023, the following accounting policies require our most difficult, subjective or complex assumptions, judgments and estimates:

- revenue recognition;
- valuation of long-lived assets, goodwill and other intangible assets;
- valuation of Series B Warrants;
- valuation of embedded derivatives; and
- accounting for income taxes.

Our critical accounting estimates have not changed materially from those disclosed in the Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K, for the year ended December 31, 2022, as filed with the SEC on March 17, 2023. For further information on the significant accounting policies related to the valuation of long-lived assets, goodwill and other intangible assets and income taxes, refer to Note 2 to the consolidated financial statements and other related significant account policies included in our Annual Report on Form 10-K, for the year ended December 31, 2022, as filed with the SEC on March 17, 2023.

Recent Accounting Pronouncements

Refer to Note 2 to consolidated financial statements included elsewhere herein.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The primary objective of our short-term investment activities is to preserve principal while concurrently maximizing the income we receive from our equity securities without significantly increasing risk. Some of the securities that we invest in may be subject to interest rate risk and/or market risk. This means that a change in prevailing interest rates, with respect to interest rate risk, or a change in the value of the United States equity markets, with respect to market risk, may cause the principal amount or market value of the equity securities to fluctuate. For example, if we hold a security that was issued with a fixed interest rate at the then-prevailing rate and the prevailing interest rate later rises, the current value of the principal amount of our investment may decline. To minimize these risks in the future, we intend to maintain our portfolio of cash equivalents and equity securities in a variety of securities. Cash equivalents are comprised of investments in U.S. treasury securities and AAA rated money market funds that invest in first-tier only securities, which primarily include domestic commercial paper and securities issued or guaranteed by the U.S. government or its agencies. In general, money market funds are not subject to market risk because the interest paid on such funds fluctuates with the prevailing interest rate. Accordingly, a 100 basis point increase in interest rates or a 10% decline in the value of the United States equity markets would not be expected to have a material impact on the value of such money market funds. Declines in interest rates over time will, however, reduce our interest income.

Investment Risk

We are exposed to investment risks related to changes in the underlying financial condition of certain of our equity investments in technology companies. The fair value of these investments can be significantly impacted by the risk of adverse changes in securities markets generally, as well as risks related to the performance of the companies whose securities we have invested in, risks associated with specific industries, and other factors. These investments are subject to significant fluctuations in fair value due to the volatility of the securities markets and of the underlying businesses.

As of June 30, 2023 and December 31, 2022, the carrying value of our equity investments in public and private companies was \$89.6 million and \$98.4 million, respectively.

We record our equity investments in publicly traded companies at fair value, which are subject to market price volatility. As of June 30, 2023, a hypothetical 10% adverse change in the market price of our investments in publicly traded common stock would have resulted in a decrease of approximately \$5.3 million in such equity investments. We evaluate our equity investments in private companies for impairment when events and circumstances indicate that the decline in fair value of such assets below the carrying value is other-than temporary.

Foreign Currency Exchange Risk

Although we historically have not had material foreign operations, we are also exposed to market risks related to fluctuations in foreign currency exchange rates between the U.S. dollar, and the British Pound and Euro currency exchange rates, primarily related to foreign cash accounts, a note receivable and certain equity security investments. As of June 30, 2023, a hypothetical 10% change in exchange rates related to our at risk foreign denominated equity securities would have approximately a \$4.2 million effect on our financial position and results of operations.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act.

Based on this evaluation, our principal executive officer and principal financial officer concluded that, as of June 30, 2023, our disclosure controls and procedures were effective to ensure that the information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure, and that such information is recorded, processed, summarized and reported within the time periods prescribed by the SEC.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during our last fiscal quarter (the quarter ended June 30, 2023) that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our principal executive officer and principal financial officer, does not expect that our disclosure controls or our internal control over financial reporting will prevent or detect all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of the effectiveness of controls to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

PART II - OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

In the ordinary course of business, we are the subject of, or party to, various pending or threatened legal actions, including various counterclaims in connection with our patent enforcement activities. We believe that any liability arising from these actions will not have a material adverse effect on our consolidated financial position, results of operations or cash flows.

Our operating subsidiaries are often required to engage in litigation to enforce their patents and patent rights. Certain of our operating subsidiaries are parties to ongoing patent enforcement related litigation, alleging infringement by third-parties of certain of the patented technologies owned or controlled by our operating subsidiaries.

In connection with any of our patent enforcement actions, it is possible that a defendant may claim and/or a court may rule that we have violated statutory authority, regulatory authority, federal rules, local court rules, or governing standards relating to the substantive or procedural aspects of such enforcement actions. In such event, a court may issue monetary sanctions against us or our operating subsidiaries or award attorney's fees and/or expenses to a defendant(s), which could be material, and if required to be paid by us or our operating subsidiaries, could materially harm our operating results and our financial position.

We spend a significant amount of our financial and management resources to pursue our current litigation matters. We believe that these litigation matters and others that we may in the future determine to pursue could continue for years and continue to consume significant financial and management resources. The counterparties to our litigation are sometimes large, well-financed companies with substantially greater resources than us. We cannot assure you that any of our current or future litigation matters will result in a favorable outcome for us. In addition, in part due to the appeals process and other legal processes, even if we obtain favorable interim rulings or verdicts in particular litigation matters, they may not be predictive of the ultimate resolution of the dispute. Also, we cannot assure you that we will not be exposed to claims or sanctions against us which may be costly or impossible for us to defend. Unfavorable or adverse outcomes may result in losses, exhaustion of financial resources or other adverse effects which could encumber our ability to effectively and efficiently monetize our assets. Refer to Note 11 to the consolidated financial statements elsewhere herein for additional information related to legal proceedings.

ITEM 1A. RISK FACTORS

An investment in our common stock involves risks. Before making an investment decision, you should carefully consider all of the information in this Quarterly Report on Form 10-Q, including in the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part I, Item 2, as well as our consolidated financial statements and the accompanying notes thereto. In addition, you should carefully consider the risks and uncertainties in the section entitled "Risk Factors" in Part I, Item 1A of our Annual Report, as well as in our other public filings with the SEC. If any of the identified risks are realized, our business, financial condition, operating results and prospects could be materially and adversely affected. In that case, the trading price of our common stock may decline, and you could lose all or part of your investment. In addition, other risks of which we are currently unaware, or which we do not currently view as material, could have a material adverse effect on our business, financial condition, operating results and prospects. There have been no changes to the Risk Factors previously reported in our Annual Report, except as follows:

Due to the completion of the transactions pursuant to the Recapitalization Agreement, we are a "controlled company" within the meaning of the Nasdaq listing standards and, as a result, qualify for, and may in the future decide to rely on, exemptions from certain corporate governance requirements. As a result, our stockholders will not have the same protections afforded to stockholders of companies that are subject to such requirements if in the future we determine to take advantage of any of the controlled company exemptions.

Due to the completion of the transactions pursuant to the Recapitalization Agreement, Starboard controls a majority of the voting power of our outstanding common stock. As of July 13, 2023, Starboard controlled approximately 61.2% of the voting power of our common stock. As a result, we qualify as a "controlled company" within the meaning of the corporate governance standards of Nasdaq. Under these rules, a listed company of which more than 50% of the voting power is held by an individual, group or another company is a "controlled company" and may avail itself of certain corporate governance exemptions afforded to controlled companies, including the requirements that a majority of the Board consist of independent directors, we have a nominating and corporate governance committee that is composed entirely of independent directors, and we have a compensation committee that is composed entirely of independent directors.

As of the date of this Quarterly Report on Form 10-Q, we have not elected to rely on any of these exemptions. However, if in the future we decide to rely on some or all of these exemptions, our stockholders will not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance requirements of Nasdaq.

Our principal stockholder, Starboard, controls 61.2% of the voting power of our Common Stock, and its interests may conflict with our other stockholders in the future.

As of July 13, 2023, Starboard controlled approximately 61.2% of the voting power of our common stock. As a result, Starboard is able to control the election of our directors and thereby determine our corporate and management policies, including potential mergers or acquisitions, asset sales, amendment of our amended and restated certificate of incorporation or amended and restated bylaws and other significant corporate transactions for so long as Starboard and its affiliates retain significant ownership of us. Starboard and its affiliates may also direct us to make significant changes to our business operations and strategy, including with respect to, among other things, strategic acquisitions, investments and initiatives to reduce costs and expenses. This concentration of our ownership may delay or deter possible changes in control of the Company, which may reduce the value of an investment in our common stock. The interests of Starboard may not coincide with the interests of other holders of our common stock.

In the ordinary course of their business activities, Starboard and its affiliates may engage in activities where their interests conflict with our interests or those of our stockholders. Starboard and its affiliates also may pursue acquisition or investment opportunities that may be complementary to our business and, as a result, those acquisition or investment opportunities may not be available to us. In addition, Starboard may have an interest in pursuing acquisitions, divestitures and other transactions that, in their judgment, could enhance an investment in our Company, even though such transactions might involve risks to our stockholders.

In addition, Starboard and its affiliates are able to determine the outcome of all matters requiring stockholder approval and are able to cause or prevent a change of control of our Company or a change in the composition of our Board and could preclude any acquisition of our Company. This concentration of voting control could deprive our stockholders of an opportunity to receive a premium for shares of common stock as part of a sale of our Company and ultimately might affect the market price of our common stock.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

As disclosed under Item 5.03 of our Amendment No.1 to our Current Report on Form 8-K filed with the SEC on August 2, 2023, on July 27, 2023, the Board approved the Fifth Amended and Restated Bylaws of the Company (the "Fifth Amended and Restated Bylaws"). The Fifth Amended and Restated Bylaws have been updated to (a) permit a majority of independent directors to appoint a Lead Independent Director who may, among other things, call a special meeting of stockholders; (b) implement procedural and other requirements regarding proposals by stockholders for director nominations and other business to be conducted at a meeting of stockholders, including to ensure compliance with Rule 14a-19 of the Securities Exchange Act of 1934, as amended; (c) permit the Secretary of the Company, upon the written request of one or more stockholders of record of the Company that hold at least ten percent (10%) in voting power of the outstanding shares of the stock of the Company, to call a special meeting of stockholders; (d) consistent with the provisions of the General Corporation Law of the State of Delaware, clarify that stockholder meetings may be held solely by means of remote communication and that directors may be removed with or without cause by the affirmative vote of a majority of the shares entitled to vote at the election of directors; (e) remove former Section 2.14, which provided certain procedures related to voting of Company shares; and (f) include certain other conforming, technical, and non-substantive changes.

The foregoing descriptions of the Fifth Amended and Restated Bylaws do not purport to be complete and are qualified in their entirety by reference to the full text of the Fifth Amended and Restated Bylaws, a copy of which is filed as Exhibit 3.2 to this Quarterly Report on Form 10-Q and is incorporated herein by reference.

ITEM 6. EXHIBITS

EXHIBIT NUMBER	EXHIBIT
3.1#	Second Amended and Restated Certificate of Designations, Preferences and Rights of Series A Convertible Preferred Stock of Acacia Research Corporation (filed herewith as Exhibit 3.1)
3.2	Fifth Amended and Restated Bylaws of Acacia Research Corporation (incorporated by reference to Exhibit 3.1 to Amendment No.1 to the Company's Current Report on Form 8-K filed on August 2, 2023)
3.3	Certificate of Retirement of Series A Convertible Preferred Stock (incorporated by reference to Exhibit 3.2 to Amendment No. 1 to the Company's Current Report on Form 8-K filed on August 2, 2023)
10.1#*	Form of Restricted Stock Unit Award Agreement (filed herewith as Exhibit 10.1)
10.2#*	Form of Performance-Based Restricted Stock Unit Award Agreement (filed herewith as Exhibit 10.2)
31.1#	Certification of Principal Executive Officer Pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934
31.2#	Certification of Principal Financial Officer Pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934
32.1†	Certification of Principal Executive Officer Pursuant to Rule 13a-14(b)/15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350
32.2†	Certification of Principal Financial Officer Pursuant to Rule 13a-14(b)/15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350
101#	The following financial statements from the Company's Quarterly Report on Form 10-Q for the three and six months ended June 30, 2023 and 2022, formatted in Inline Extensible Business Reporting Language (iXBRL): (i) Condensed Consolidated Balance Sheets, (ii) Condensed Consolidated Statements of Operations, (iii) Condensed Consolidated Statements of Series A Redeemable Convertible Preferred Stock and Stockholders' Equity, (iv) Condensed Consolidated Statements of Cash Flows and (v) Notes to Condensed Consolidated Financial Statements, tagged as blocks of text and including detailed tags.
104#	Cover Page Interactive Data File (formatted in iXBRL and included in Exhibit 101)

Filed herewith.

* The referenced exhibit is a management contract, compensatory plan or arrangement.

† The certifications attached as Exhibits 32.1 and 32.2 that accompany this Quarterly Report pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, shall not be deemed "filed" by the Registrant for purposes of Section 18 of the Exchange Act and are not to be incorporated by reference into any of the Registrant's filings under the Securities Act or the Exchange Act, irrespective of any general incorporation language contained in any such filing.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this Quarterly Report to be signed on its behalf by the undersigned, thereunto duly authorized.

ACACIA RESEARCH CORPORATION

Date: August 3, 2023

/s/ Martin D. McNulty Jr.

By: Martin D. McNulty Jr.

Interim Chief Executive Officer

(Principal Executive Officer and Duly Authorized Signatory)

Date: August 3, 2023

/s/ Kirsten Hoover

By: Kirsten Hoover

Interim Chief Financial Officer

(Principal Financial Officer and Accounting Officer)

**SECOND AMENDED AND RESTATED CERTIFICATE OF DESIGNATIONS, PREFERENCES AND RIGHTS OF SERIES
A CONVERTIBLE PREFERRED STOCK
OF
ACACIA RESEARCH CORPORATION**

Acacia Research Corporation (the “**Company**”), a corporation organized and existing under the General Corporation Law of the State of Delaware (the “**DGCL**”), does hereby certify that the Board of Directors of the Company (the “**Board**”), pursuant to authority conferred upon the Board by the Certificate of Incorporation, as amended, of the Company, and the Required Holders (as such term is defined in the Initial Certificate of Designations, as defined below) of the Series A Convertible Preferred Stock of the Company, par value \$0.001 per share (the “**Series A Preferred Shares**”), pursuant to the provisions of the DGCL, have adopted resolutions amending and restating the Certificate of Designations, Preferences and Rights of Series A Convertible Preferred Stock of the Company, as follows;

WHEREAS, pursuant to its authority, the Board previously fixed the powers, designations, preferences and other special rights relating to the Series A Preferred Shares, consisting of up to 350,000 shares of Series A Preferred Shares, 350,000 of which have been issued, as set forth in a Certificate of Designations, Preferences and Rights of Series A Convertible Preferred Stock of Acacia Research Corporation dated November 18, 2019 (the “**Initial Certificate of Designations**”); and

WHEREAS, pursuant to its authority, the Board duly adopted on January 7, 2020, and by an Amended and Restated Certificate of Designations, Preferences and Rights of Series A Convertible Preferred Stock of Acacia Research Corporation filed in the office of the Secretary of State of Delaware on January 7, 2020 (the “**A&R Certificate of Designation**”), the Company amended and restated the provisions of the Initial Certificate of Designations;

WHEREAS, the Board wishes to amend and restate the A&R Certificate of Designations in its entirety to remove certain limitations on conversion;

RESOLVED, that the Board does hereby amend and restate the A&R Certificate of Designations, which shall have the following powers, designations, preferences and other special rights:

(1) Ranking. The Series A Preferred Shares shall rank prior and superior to all of the Common Stock and any other capital stock of the Company with respect to the preferences as to dividends, distributions and payments upon a Liquidation Event. The rights of the shares of Common Stock and other capital stock of the Company shall be of junior rank to and subject to the preferences and relative rights of the Series A Preferred Shares. The Company shall be permitted to issue capital stock, including preferred stock, that is junior in rank to the Series A Preferred Shares in respect of the preferences as to dividends and other distributions, redemption payments and payments upon a Liquidation Event (such stock being referred to hereinafter collectively as “**Junior Stock**”), provided, that the maturity date (or any other date requiring redemption, repayment or any other payment, including, without limitation, dividends in respect of any such shares of preferred stock) of any such junior preferred shares is not on or before 91 days after the Maturity Date.

(2) Prepayment. Other than as specifically permitted by this Second Amended and Restated Certificate of Designations, Preferences and Rights of Series A Preferred Shares of the Company (this “**Certificate of Designations**”), the Company may not prepay any portion of any outstanding Conversion Amount.

(3) **Liquidation.** In the event of a Liquidation Event, holders of Series A Preferred Shares (each, a “**Holder**” and collectively, the “**Holders**”) shall be entitled to receive in cash out of the assets of the Company legally available therefor, whether from capital or from earnings available for distribution to its stockholders (the “**Liquidation Funds**”) upon such Liquidation Event, but before any amount shall be paid to the holders of Junior Stock, an amount per Series A Preferred Share equal to the greater of (i) the Conversion Amount and (ii) the amount that would have been received had such Series A Preferred Shares been converted into Common Stock immediately prior to such Liquidation Event at the then effective Conversion Price (without regard to any limitations on conversion); provided that, if the Liquidation Funds are insufficient to pay the full amount due to the Holders and holders of shares of other classes or series of preferred stock of the Company, if any, that are of equal rank with the Series A Preferred Shares as to payments of Liquidation Funds (such stock being referred to hereinafter collectively as “**Pari Passu Stock**”), if any, then each Holder and each holder of any such Pari Passu Stock shall receive a percentage of the Liquidation Funds equal to the full amount of Liquidation Funds that would be payable to such Holder as a liquidation preference, in accordance with their respective Certificate of Designations, Preferences and Rights, as a percentage of the full amount of Liquidation Funds payable to all Holders and holders of Pari Passu Stock.

(4) **Dividends.** From and after the first date of issuance of any Series A Preferred Shares (the “**Issuance Date**”), (i) the Holders of record as they appear on the stock books of the Company on the fifteenth (15th) day (even if such day is not a Business Day) (a “**Preferential Dividend Record Date**”) of the calendar month immediately preceding the first (1st) Business Day of each succeeding Calendar Quarter (each such date, a “**Preferential Dividend Date**”), shall be entitled to receive, to the fullest extent permitted by law and out of funds lawfully available therefor, before any dividends shall be declared, set apart for or paid upon the Common Stock or any other Junior Stock, cash dividends, by wire transfer of immediately available funds, per Series A Preferred Share on the applicable Preferential Dividend Date in arrears for the previous Calendar Quarter equal to an amount of cash calculated at the applicable Preferential Dividend Rate on the Stated Value of each such Series A Preferred Share computed on the basis of a 360-day year and twelve 30-day months (the “**Preferential Dividends**”) and (ii) the Holders on the record date fixed for holders of Common Stock for dividends and distributions (or, in the event no such date is fixed, on the Preferential Dividend Record Date) shall be entitled to receive, concurrently with the dividends and distributions to the holders of Common Stock (or, in the event no such dividends or distributions are made, on the Preferential Dividend Date), such dividends paid and distributions made to the holders of Common Stock to the same extent as if such Holders had converted the Series A Preferred Shares into Common Stock (without regard to any limitations on conversion) and had held such shares of Common Stock on such record date (the “**Participating Dividends**” and together with the Preferential Dividends, the “**Dividends**”). Dividends on the Series A Preferred Shares shall commence accruing on the Issuance Date, shall be cumulative and shall continue to accrue whether or not declared and whether or not in any fiscal year there shall be net profits or surplus available for the payment of Dividends in such fiscal year, so that if in any fiscal year or years, Dividends in whole or in part are not paid upon the Series A Preferred Shares for any reason, unpaid Dividends shall accumulate thereon. If the Company fails to declare and pay in cash full Preferential Dividends on the Series A Preferred Shares on any Preferential Dividend Date as provided in this Section 4, then any Preferential Dividends payable on such Preferential Dividend Date on the Series A Preferred Shares but not paid shall accrue and bear interest at a rate equal to the Preferential Dividend Rate, computed on the basis of a 360-day year and twelve 30-day months, from and including the applicable Preferential Dividend Date to but excluding the day on which the Company shall have paid in cash in accordance with this Section 4 all Dividends on which the Series A Preferred Shares that are then in arrears or until the conversion or redemption of the applicable shares of Series A Preferred Shares. From and after the occurrence and during the continuance of a Triggering Event, the Preferential Dividend Rate shall be increased to either (i) seven percent (7.0%) per

annum if before the consummation of an Approved Investment or (ii) ten percent (10.0%) per annum if after the consummation of an Approved Investment. In the event that such Triggering Event is subsequently cured, the adjustment referred to in the preceding sentence shall cease to be effective as of the date of such cure; provided, that the Preferential Dividends as calculated and unpaid at such increased rate during the continuance of such Triggering Event shall continue to apply to the extent relating to the days after the occurrence of such Triggering Event through and including the date of cure of such Triggering Event; provided, further, that for the purpose of this Section 4, such Triggering Event shall not be deemed cured unless and until any accrued and unpaid Dividends shall be paid to the Holders, including, without limitation, Preferential Dividends accrued at the applicable increased rate. The Company and its Subsidiaries shall not redeem or repurchase any Equity Interests or pay any dividends with respect to any Equity Interests (other than Series A Preferred Shares pursuant to the terms of this Certificate of Designation) unless the Company has declared all Dividends on the Series A Preferred Shares that have accrued through the Preferential Dividend Record Date immediately preceding the date of such redemption or repurchase and paid all Dividends on the Series A Preferred Shares that are payable through the Preferential Dividend Date immediately preceding the date of such redemption or repurchase.

(5) Conversion of Series A Preferred Shares. At any time or times after the Issuance Date, the Series A Preferred Shares shall be convertible into shares of Common Stock, on the terms and conditions set forth in this Section 5.

(a) Holder's Conversion Right. At any time or times on or after the Issuance Date, any Holder shall be entitled to convert all or any portion of the Conversion Amount of any Series A Preferred Shares, into fully paid and nonassessable shares of Common Stock in accordance with this Section 5 at the Conversion Rate (as defined below).

(b) Conversion. The number of shares of Common Stock issuable upon conversion of each Series A Preferred Share pursuant to Section 5(a) shall be determined according to the following formula (the "**Conversion Rate**"):

$$\frac{\text{Conversion Amount}}{\text{Conversion Price}}$$

No fractional shares of Common Stock are to be issued upon the conversion of any Series A Preferred Share, but rather the number of shares of Common Stock to be issued shall be rounded up to the nearest whole number. The applicable Conversion Rate and Conversion Price from time to time in effect is subject to adjustment as hereinafter provided.

(c) Mechanics of Conversion. The conversion of Series A Preferred Shares shall be conducted in the following manner:

(i) Holder's Delivery Requirements. To convert Series A Preferred Shares into shares of Common Stock on any date on or after the Issuance Date (a "**Conversion Date**"), a Holder shall (A) deliver to the Company on or prior to 11:59 p.m., New York time, on such date, a copy of a properly completed notice of conversion executed by the Holder of the Series A Preferred Shares subject to such conversion in the form attached hereto as Exhibit I (a "**Conversion Notice**") and (B) if required by Section 5(c)(vi), but without delaying the Company's requirement to deliver shares of Common Stock on the applicable Share Delivery Date (as defined below), surrender to a common carrier for delivery to the Company as soon as practicable following such date the original certificates representing the Series A Preferred Shares being converted (or comply with the procedures set forth in Section 22) (the "**Series A Preferred Stock**").

Certificates"). No ink-original Conversion Notice shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Conversion Notice be required.

(ii) Company's Response. Upon delivery to the Company of a Conversion Notice, the Company shall (I) as soon as practicable, but in any event within one (1) Trading Day, send a confirmation of receipt of such Conversion Notice to such Holder and the Transfer Agent, which confirmation shall constitute an instruction to the Transfer Agent to process such Conversion Notice in accordance with the terms herein and (II) on or before the earlier of (A) the number of Trading Days comprising the Standard Settlement Period and (B) the second (2nd) Trading Day following the date on which the Holder has delivered the applicable Conversion Notice to the Company (a "**DTC Share Delivery Date**"), provided that (A) the shares of Common Stock issuable upon such conversion are subject to an effective resale registration statement in favor of such Holder or (B) if converted at a time when Rule 144 would be available for immediate resale of the shares of Common Stock issuable upon such conversion by such Holder, the Company shall credit such aggregate number of shares of Common Stock to which such Holder shall be entitled to such Holder's or its designee's balance account with the Depository Trust Company ("**DTC**") through its Deposit/Withdrawal at Custodian ("**DWAC**") system.

On or before the fifth (5th) Trading Day following the date on which the Holder has delivered the applicable Conversion Notice to the Company (a "**Book-Entry Delivery Date**" and together with the DTC Share Delivery Date, a "**Share Delivery Date**"), the shares of Common Stock issuable upon conversion are not subject to an effective resale registration statement in favor of such Holder and, if converted at a time when Rule 144 would not be available for immediate resale of the shares of Common Stock issuable upon conversion by such Holder, the Company shall (i) issue the number of shares of Common Stock to which the Holder shall be entitled with such restrictive legends as shall be required pursuant to Section 4(y) of the Securities Purchase Agreement, registered in the name of the Holder or its designee in book-entry form at the Transfer Agent and (ii) deliver to the address as specified in the applicable Conversion Notice a copy from the Company's books and records evidencing such issuance. If a Series A Preferred Stock Certificate is physically submitted in connection with any conversion and if the number of Series A Preferred Shares represented by the Series A Preferred Stock Certificate(s) submitted for conversion is greater than the number of Series A Preferred Shares being converted, then the Company shall, as soon as practicable and in no event later than five (5) Business Days after delivery of the Series A Preferred Stock Certificate(s) and at its own expense, issue and deliver to such Holder a new Series A Preferred Stock Certificate representing the number of Series A Preferred Shares not converted. The Company's obligations to issue and deliver shares of Common Stock in accordance with the terms and subject to the conditions hereof are absolute and unconditional, irrespective of any action or inaction by such Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination. While any Series A Preferred Shares are outstanding, the Company shall use a transfer agent that participates in DTC Fast Automated Securities Transfer ("**FAST**") Program.

(iii) Record Holder. The Person or Persons entitled to receive the shares of Common Stock issuable upon a conversion of Series A Preferred Shares shall be treated for all purposes as the record holder or holders of such shares of Common Stock on the applicable Conversion Date, irrespective of the date such shares of Common Stock are credited to such Holder's account with DTC or the

date of delivery of the certificates evidencing such shares of Common Stock, as the case may be.

(iv) Company's Failure to Timely Convert

(A) Cash Damages. If on or prior to the applicable Share Delivery Date the Company shall fail to issue to a Holder in book- entry from at the Transfer Agent or credit such Holder's balance account with DTC, as applicable, for the number of shares of Common Stock to which such Holder is entitled upon such Holder's conversion of Series A Preferred Shares or the Company fails to comply with its obligation to deliver shares of Common Stock as contemplated pursuant to clause (ii) below (unless such failure is due solely to the action or inaction of the Holder or an agent of the Holder) (each, a "**Conversion Failure**"), then, in addition to all other remedies available to the Holder, (A) the Company shall pay damages to such Holder for each Trading Day of such Conversion Failure in an amount equal to 2.0% of the product of (1) the sum of the number of shares of Common Stock not issued to such Holder on or prior to the applicable Share Delivery Date and to which such Holder is entitled, and (2) the Weighted Average Price of the shares of Common Stock on the applicable Share Delivery Date and (B) in addition to the foregoing, if on or after the applicable Share Delivery Date such Holder purchases (in an open market transaction or otherwise) shares of Common Stock relating to the applicable Conversion Failure (a "**Buy-In**"), within two (2) Trading Days after such Holder's request and in such Holder's discretion, either (i) pay cash to such Holder in an amount equal to such Holder's total purchase price (including brokerage commissions and other out-of-pocket expenses, if any) for the shares of Common Stock so purchased (the "**Buy-In Price**"), at which point the Company's obligation to issue and deliver such certificate or credit such Holder's balance account with DTC for such shares of Common Stock shall terminate, or (ii) promptly honor its obligation to deliver to such Holder a certificate or certificates representing such shares of Common Stock or credit the Holder's balance account with DTC for such shares of Common Stock, as applicable, and pay cash to such Holder in an amount equal to the excess (if any) of the Buy-In Price over the product of (A) such number of shares of Common Stock, times (B) the Closing Bid Price of the Common Stock on the applicable Conversion Date. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver certificates representing shares of Common Stock (or to electronically deliver such shares of Common Stock) upon conversion of the Series A Preferred Shares as required pursuant to the terms hereof, but if the Holder exercises its Buy-In right, then such remedy shall be the sole and exclusive remedy for such Conversion Failure.

(B) Void Conversion Notice. If for any reason a Holder has not received all of the shares of Common Stock to which such Holder is entitled on the applicable Share Delivery Date with respect to a conversion of Series A Preferred Shares, then such Holder, upon written notice to the Company may void its Conversion Notice with respect to, and retain or have returned, as the case may be, any Series A Preferred Shares that have

not been converted pursuant to such Holder's Conversion Notice;provided that the voiding of a Holder's Conversion Notice shall not affect the Company's obligations to make any payments which have accrued prior to the date of such notice pursuant to Section 5(c)(iv)(A) or otherwise.

(v) Pro Rata Conversion; Disputes. In the event the Company receives a Conversion Notice from more than one Holder for the same Conversion Date and the Company can convert some, but not all, of such Series A Preferred Shares, the Company shall convert from each holder electing to have Series A Preferred Shares converted at such time a pro rata amount of such holder's portion of Series A Preferred Shares submitted for conversion based on Stated Value of Series A Preferred Shares submitted for conversion on such date by such holder relative to the aggregate Stated Value of Series A Preferred Shares submitted for conversion on such date. In the event of a dispute as to the number of shares of Common Stock issuable to a Holder in connection with a conversion of Series A Preferred Shares, the Company shall issue to such Holder the number of shares of Common Stock not in dispute and resolve such dispute in accordance with Section 19.

(vi) Book-Entry. Notwithstanding anything to the contrary set forth herein, upon conversion of Series A Preferred Shares in accordance with the terms hereof, a Holder thereof shall not be required to physically surrender the certificate representing the Series A Preferred Shares to the Company unless (A) the full or remaining number of Series A Preferred Shares represented by the certificate are being converted, in which case such Holder shall deliver such stock certificate to the Company as soon as reasonably practicable following such conversion or (B) a Holder has provided the Company with prior written notice (which notice may be included in a Conversion Notice) requesting reissuance of Series A Preferred Shares upon physical surrender of any Series A Preferred Shares. Each Holder and the Company shall maintain records showing the number of Series A Preferred Shares so converted and the dates of such conversions or shall use such other method, reasonably satisfactory to the Holders and the Company, so as not to require physical surrender of the certificate representing the Series A Preferred Shares upon each such conversion. In the event of any dispute or discrepancy, such records of the Company establishing the number of Series A Preferred Shares to which the record holder is entitled shall be controlling and determinative in the absence of manifest error. If the Company does not update its records to record such Stated Value and Dividends converted and/or paid (as the case may be) and the dates of such conversions and/or payments (as the case may be) within two (2) Business Days of such occurrence, then the Company's records shall be automatically deemed updated to reflect such occurrence. Notwithstanding the foregoing, if Series A Preferred Shares represented by a certificate are converted as aforesaid, a Holder may not transfer the certificate representing the Series A Preferred Shares unless such Holder first physically surrenders the certificate representing the Series A Preferred Shares to the Company, whereupon the Company will within five (5) Business Days of receipt of such surrender, issue and deliver upon the order of such Holder a new certificate of like tenor, registered as such Holder may request, representing in the aggregate the remaining number of Series A Preferred Shares represented by such certificate within five (5) Business Days. A Holder and any assignee, by acceptance of a certificate, acknowledge and agree that, by reason of the provisions of this paragraph, following conversion of any Series A Preferred Shares, the number of Series A Preferred Shares represented by such certificate

may be less than the number of Series A Preferred Shares stated on the face thereof. Each certificate for Series A Preferred Shares shall bear the following legend:

ANY TRANSFEREE OF THIS CERTIFICATE SHOULD CAREFULLY REVIEW THE TERMS OF THE COMPANY'S CERTIFICATE OF DESIGNATIONS RELATING TO THE SERIES A PREFERRED SHARES REPRESENTED BY THIS CERTIFICATE, INCLUDING SECTION 5(c)(vi) THEREOF. THE NUMBER OF SERIES A PREFERRED SHARES REPRESENTED BY THIS CERTIFICATE MAY BE LESS THAN THE NUMBER OF SERIES A PREFERRED SHARES STATED ON THE FACE HEREOF PURSUANT TO SECTION 5(c)(vi) OF THE CERTIFICATE OF DESIGNATIONS RELATING TO THE SERIES A PREFERRED SHARES REPRESENTED BY THIS CERTIFICATE.

(d) Mandatory Conversion at the Company's Election. If at any time, or from time to time, from and after November 15, 2025 (the "**Mandatory Conversion Start Date**") (i) the Closing Bid Price of the Common Stock has equaled or exceeded 190% of the initial Conversion Price (as adjusted for any stock dividend, stock split, stock combination, reclassification or similar transaction relating to the Common Stock occurring after the Subscription Date, but, for the avoidance of doubt not giving effect to any adjustment to the Conversion Price pursuant to Section 5(g)) (a "**Mandatory Conversion Price Condition**") for at least thirty (30) consecutive Trading Days following the Mandatory Conversion Start Date (a "**Mandatory Conversion Measuring Period**") and (ii) no other Equity Conditions Failure has occurred during the period beginning on the first day of the applicable Mandatory Conversion Measuring Period relating to the applicable Mandatory Conversion (as defined below) through the applicable Mandatory Conversion Date (as defined below), the Company shall from time to time have the right to require the Holders to convert all, or any portion, of the outstanding Series A Preferred Shares, as designated in the Mandatory Conversion Notice (as defined below) relating to the applicable Mandatory Conversion on the applicable Mandatory Conversion Date into fully paid, validly issued and nonassessable shares of Common Stock at the Conversion Rate as of the applicable Mandatory Conversion Date (a "**Mandatory Conversion**"). The Company may exercise its right to require conversion under this Section 5(d) by delivering within not more than thirty (30) days following the end of any such Mandatory Conversion Measuring Period a written notice thereof by electronic mail to all Holders and the Transfer Agent (a "**Mandatory Conversion Notice**" and the date the Company delivers to the Transfer Agent and all Holders such notice is referred to as a "**Mandatory Conversion Notice Date**"). Each Mandatory Conversion Notice shall be irrevocable. Each Mandatory Conversion Notice shall (i) (a) state the Trading Day on which the applicable Mandatory Conversion shall occur, which Trading Day shall be the thirtieth (30th) Trading Day following the applicable Mandatory Conversion Notice Date (a "**Mandatory Conversion Date**"), (b) state the aggregate Conversion Amount of the Series A Preferred Shares which the Company has elected to be subject to such Mandatory Conversion from such Holder and all other Holders pursuant to this Section 5(d) and (c) state the number of shares of Common Stock to be issued to such Holder on the applicable Mandatory Conversion Date and (ii) certify that the Mandatory Conversion Price Condition relating to the applicable Mandatory Conversion has been satisfied and that there has been no other Equity Conditions Failure on any day during the period beginning on the first day of the applicable Mandatory Conversion Measuring Period prior to the related Mandatory Conversion Notice Date through the applicable Mandatory Conversion Notice Date. If the Company confirmed that there was no such Equity Conditions Failure relating to the

applicable Mandatory Conversion as of the applicable Mandatory Conversion Notice Date, but an Equity Conditions Failure occurs at any time between the applicable Mandatory Conversion Notice Date and the applicable Mandatory Conversion Date (a “**Mandatory Conversion Interim Period**”), the Company shall provide each Holder a subsequent written notice to that effect. If there is an Equity Conditions Failure during the applicable Mandatory Conversion Interim Period, then such Mandatory Conversion shall be null and void with respect to all or any part designated by such Holder of the unconverted Series A Preferred Shares subject to the applicable Mandatory Conversion and such Holder shall be entitled to all the rights of a holder of Series A Preferred Shares with respect to such Series A Preferred Shares; provided, however, that if a Holder waives in writing an Equity Conditions Failure during the applicable Mandatory Conversion Interim Period, then the Company shall be required to proceed with the applicable Mandatory Conversion with respect to such Holder (but not with respect any Holder who has not so waived such Equity Conditions Failure). Notwithstanding anything to the contrary in this Section 5(d), until the applicable Mandatory Conversion has occurred, the Series A Preferred Shares subject to the applicable Mandatory Conversion may be (i) converted, in whole or in part, by a Holder into shares of Common Stock pursuant to Section 5 and/or (ii) exchanged, in whole or in part, by a Holder into Exchange Notes and Exchange Series B Warrants pursuant to Section 16. All Series A Preferred Shares converted by a Holder after a Mandatory Conversion Notice Date pursuant to Section 5(c) or exchanged pursuant to Section 16 shall reduce the Series A Preferred Shares required to be converted on the related Mandatory Conversion Date. If the Company elects to cause a Mandatory Conversion pursuant to this Section 5(d), then it must simultaneously take the same action in the same proportion with respect to all Series A Preferred Shares, to the extent practicable or, if the pro rata basis is not practicable for any reason, by lot or such other equitable method as the Company determines in good faith. At each Mandatory Conversion Date, each Series A Preferred Share to be converted pursuant to such Mandatory Conversion shall automatically be converted into fully paid, validly issued, nonassessable shares of Common Stock at the Conversion Rate as of the applicable Mandatory Conversion Date without any further act or deed on the part of the Company, any Holder or any other Person.

(e) [Reserved.]

(f) Transfer Taxes. The Company shall pay any and all transfer, stamp and similar taxes that may be payable with respect to the issuance and delivery of Common Stock upon conversion of any Conversion Amount.

(g) Adjustments to Conversion Price. The Conversion Price will be subject to adjustment from time to time as provided in this Section 5(g).

(i) Adjustment of Conversion Price upon Issuance of Common Stock If and whenever on or after the Subscription Date, the Company issues or sells, or in accordance with this Section 5(g)(i) is deemed to have issued or sold, any shares of Common Stock (including the issuance or sale of shares of Common Stock owned or held by or for the account of the Company, but excluding shares of Common Stock issued by the Company as a dividend or other distribution in respect of the Common Stock for which an adjustment is made pursuant to Section 5(g)(iii) or deemed to have been issued or sold by the Company in connection with any Excluded Securities) for a consideration per share less than a price (the “**Applicable Price**”) equal to the Conversion Price in effect immediately prior to such issuance or sale or deemed issuance or sale (the foregoing, a “**Dilutive Issuance**”), then immediately after such Dilutive Issuance, the Conversion Price then in effect shall be reduced to an amount equal to the

product of (A) the Conversion Price in effect immediately prior to such Dilutive Issuance and (B) the quotient determined by dividing (1) the sum of (I) the product derived by multiplying the Conversion Price in effect immediately prior to such Dilutive Issuance and the number of shares of Common Stock Deemed Outstanding immediately prior to such Dilutive Issuance plus (II) the consideration, if any, received by the Company upon such Dilutive Issuance, by (2) the product derived by multiplying (I) the Conversion Price in effect immediately prior to such Dilutive Issuance by (II) the number of shares of Common Stock Deemed Outstanding immediately after such Dilutive Issuance. For purposes of determining the adjusted Conversion Price under this Section 5(g)(i), the following shall be applicable:

(A) Issuance of Options. If the Company in any manner grants or sells any Options and the lowest price per share for which one share of Common Stock is issuable upon the exercise of any such Option or upon conversion, exercise or exchange of any Convertible Securities issuable upon exercise of any such Option is less than the Applicable Price, then such share of Common Stock shall be deemed to be outstanding and to have been issued and sold by the Company at the time of the granting or sale of such Option for such price per share. For purposes of this Section 5(g)(i)(A), the "lowest price per share for which one share of Common Stock is issuable upon the exercise of any such Option or upon conversion, exercise or exchange of any Convertible Securities issuable upon exercise of any such Option" shall be equal to the sum of the lowest amounts of consideration (if any) received or receivable by the Company with respect to any one share of Common Stock upon the granting or sale of the Option, upon exercise of the Option and upon conversion, exercise or exchange of any Convertible Security issuable upon exercise of such Option less any consideration paid or payable by the Company with respect to such one share of Common Stock upon the granting or sale of such Option, upon exercise of such Option and upon conversion exercise or exchange of any Convertible Security issuable upon exercise of such Option. No further adjustment of the Conversion Price shall be made upon the actual issuance of such shares of Common Stock or of such Convertible Securities upon the exercise of such Options or upon the actual issuance of such shares of Common Stock upon conversion, exercise or exchange of such Convertible Securities.

(B) Issuance of Convertible Securities. If the Company in any manner issues or sells any Convertible Securities and the lowest price per share for which one share of Common Stock is issuable upon the conversion, exercise or exchange thereof is less than the Applicable Price, then such share of Common Stock shall be deemed to be outstanding and to have been issued and sold by the Company at the time of the issuance or sale of such Convertible Securities for such price per share. For the purposes of this Section 5(g)(i)(B), the "lowest price per share for which one share of Common Stock is issuable upon the conversion, exercise or exchange thereof" shall be equal to the sum of the lowest amounts of consideration (if any) received or receivable by the Company with respect to any one share of Common Stock upon the issuance or sale of the Convertible Security and upon conversion, exercise or exchange of such Convertible Security less any consideration paid or payable by the Company with respect to such one share of Common Stock upon the issuance or sale of such Convertible Security and upon conversion,

exercise or exchange of such Convertible Security. No further adjustment of the Conversion Price shall be made upon the actual issuance of such shares of Common Stock upon conversion, exercise or exchange of such Convertible Securities, and if any such issue or sale of such Convertible Securities is made upon exercise of any Options for which adjustment of the Conversion Price has been or is to be made pursuant to other provisions of this Section 5(g)(i), no further adjustment of the Conversion Price shall be made by reason of such issue or sale.

(C) Change in Option Price or Rate of Conversion If the purchase or exercise price provided for in any Options, the additional consideration, if any, payable upon the issue, conversion, exercise or exchange of any Convertible Securities, or the rate at which any Convertible Securities are convertible into or exercisable or exchangeable for shares of Common Stock increases or decreases at any time, the Conversion Price in effect at the time of such increase or decrease shall be adjusted to the Conversion Price, which would have been in effect at such time had such Options or Convertible Securities provided for such increased or decreased purchase price, additional consideration or increased or decreased conversion rate, as the case may be, at the time initially granted, issued or sold. For purposes of this Section 5(g)(i)(C), if the terms of any Option or Convertible Security that was outstanding as of the Subscription Date are increased or decreased in the manner described in the immediately preceding sentence, then such Option or Convertible Security and the shares of Common Stock deemed issuable upon exercise, conversion or exchange thereof shall be deemed to have been issued as of the date of such increase or decrease. No adjustment pursuant to this Section 5(g)(i) shall be made if such adjustment would result in an increase of the Conversion Price then in effect.

(D) Calculation of Consideration Received. In case any Option is issued in connection with the issue or sale of other securities of the Company, together comprising one integrated transaction, (x) the Options will be deemed to have been issued for the Option Value of such Options and (y) the other securities issued or sold in such integrated transaction shall be deemed to have been issued or sold for the difference of (I) the aggregate consideration received by the Company less any consideration paid or payable by the Company pursuant to the terms of such other securities of the Company, less (II) the Option Value of such Options. If any shares of Common Stock, Options or Convertible Securities are issued or sold or deemed to have been issued or sold for cash, the consideration received therefor will be deemed to be the net amount received by the Company. If any shares of Common Stock, Options or Convertible Securities are issued or sold for a consideration other than cash, the amount of such consideration received by the Company will be the fair value of such consideration determined by the Board in good faith, except where such consideration consists of publicly traded securities, in which case the amount of consideration received by the Company will be the Closing Sale Price of such publicly traded securities on the date of receipt of such publicly traded securities. If any shares of Common Stock, Options or Convertible Securities are issued to the owners of the non-surviving entity in connection with any merger in which the Company is the surviving entity, the amount of consideration therefor will be deemed to be the fair value of such portion of the net assets and business of the

non-surviving entity as is attributable to such shares of Common Stock, Options or Convertible Securities, as the case may be, in each case determined by the Board in good faith. The fair value of any consideration other than cash or publicly traded securities will be determined by the Board in good faith. If the Required Holders object in writing to any determination of fair value by the Board pursuant to this subsection within five (5) Business Days of notice of such determination (the “**Valuation Event**”), the fair value of such consideration will be determined within five (5) Business Days after the tenth (10th) Business Day following the Valuation Event by an independent, reputable appraiser jointly selected by the Company and the Required Holders. The determination of such appraiser shall be final and binding upon all parties absent manifest error and the fees and expenses of such appraiser shall be borne by the Company. Notwithstanding anything to the contrary contained herein, if any calculation pursuant to this Section 5(g)(i)(D) would result in a Conversion Price that is lower than the par value of the Common Stock, then the Conversion Price shall be deemed to equal the par value of the Common Stock.

(E) Record Date. If the Company takes a record of the holders of shares of Common Stock for the purpose of entitling them (I) to receive a dividend or other distribution payable in shares of Common Stock, Options or in Convertible Securities or (II) to subscribe for or purchase shares of Common Stock, Options or Convertible Securities, then such record date will be deemed to be the date of the issue or sale of the shares of Common Stock deemed to have been issued or sold upon the declaration of such dividend or the making of such other distribution or the date of the granting of such right of subscription or purchase, as the case may be.

(ii) Voluntary Adjustment By Company. The Company may at any time, with the prior written consent of the Required Holders, reduce the then current Conversion Price to any amount and for any period of time deemed appropriate by the Board.

(iii) Adjustment of Conversion Price upon Subdivision or Combination of Common Stock If the Company at any time on or after the Subscription Date subdivides (by any stock split, stock dividend, recapitalization or otherwise) one or more classes of its outstanding shares of Common Stock into a greater number of shares, the Conversion Price in effect immediately prior to such subdivision will be proportionately reduced. If the Company at any time on or after the Subscription Date combines (by combination, reverse stock split or otherwise) one or more classes of its outstanding shares of Common Stock into a smaller number of shares, the Conversion Price in effect immediately prior to such combination will be proportionately increased. Any adjustment under this Section 5(g)(iii) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(iv) Other Events. If any event occurs of the type contemplated by the provisions of this Section 5(g) but not expressly provided for by such provisions (including, without limitation, the granting of stock appreciation rights, phantom stock rights or other rights with equity features), then the Board will make an appropriate adjustment in the Conversion Price, as mutually determined by the Board and the Required Holders, so as to protect the rights of the Holders;

provided that no such adjustment pursuant to this Section 5(g)(iv) will increase the Conversion Price as otherwise determined pursuant to this Section 5(g).

(h) Cash Payment. In the event that the Company is unable to issue and deliver (i) any shares of Common Stock in accordance with the terms of the Transaction Documents by virtue of the Company not having a sufficient number of authorized shares as set forth in Section 12, or (ii) from and after the six (6) month anniversary of the Issuance Date, Freely Tradable Shares, the Company shall pay cash on or prior to the applicable Share Delivery Date to such Holder in exchange for such number of shares of Common Stock that are not deliverable or Freely Tradable Shares, as applicable, upon conversion of the Series A Preferred Shares at a price equal to the product of (x) such number of shares of Common Stock and (y) the highest Closing Sale Price of the Common Stock in effect at any time during the period beginning on the applicable Conversion Date and ending on the date the Company makes the payment provided for in this sentence. For the avoidance of doubt, if the Company is required to make a cash payment to a Holder pursuant to this Section 5(h), the Company shall upon and to the extent of such cash payment have satisfied its obligation to deliver shares of Common Stock upon such conversion.

(i) Notices. The Company shall provide each Holder with prompt written notice of all actions taken pursuant to this Certificate of Designations, including in reasonable detail a description of such action and the reason therefor. Without limiting the generality of the foregoing:

(i) Promptly upon any adjustment of the Conversion Price pursuant to Section 5(g), the Company shall give written notice thereof to each Holder, setting forth in reasonable detail, and certifying, the calculation of such adjustment. In the case of a dispute as to the determination of such adjustment, then such dispute shall be resolved in accordance with the procedures set forth in Section 19.

(ii) The Company shall give written notice to each Holder at least ten (10) Business Days prior to the date on which the Company closes its books or takes a record (I) with respect to any dividend or distribution upon the Common Stock, (II) with respect to any pro rata subscription offer to holders of Common Stock or (III) for determining rights to vote with respect to any Fundamental Transaction or Liquidation Event.

(iii) The Company shall also give written notice to each Holder at least ten (10) Business Days prior to the date on which any Fundamental Transaction or Liquidation Event will take place, provided that such information shall be made known to the public prior to or in conjunction with such notice being provided to such Holder.

(6) Redemption at Option of Holders

(a) Triggering Event. A “**Triggering Event**” shall be deemed to have occurred at such time as any of the following events and each of the events in clauses (vi) and (vii) shall constitute a “**Bankruptcy Triggering Event**”:

(i) the failure of the applicable Registration Statement required to be filed pursuant to the Registration Rights Agreement to be filed or declared effective within the applicable time period specified in the Registration Rights Agreement, or, at any time while the applicable Registration Statement is required

to be maintained effective pursuant to the terms of the Registration Rights Agreement, the effectiveness of the applicable Registration Statement lapses for any reason (including, without limitation, the issuance of a stop order) or is unavailable to any Holder for sale of all of such Holder's Registrable Securities in accordance with the terms of the Registration Rights Agreement, and such lapse or unavailability continues for a period of ten (10) consecutive Trading Days or for more than an aggregate of fifteen (15) Trading Days in any 365-day period (other than days during an Allowable Grace Period (as defined in the Registration Rights Agreement));

(ii) (A) the suspension of the Common Stock from trading on an Eligible Market for a period of five (5) consecutive Trading Days or for more than an aggregate of fifteen (15) Trading Days in any 365-day period or (B) the failure of the Common Stock to be listed on an Eligible Market;

(iii) the Company's (A) failure to cure a Conversion Failure within five (5) Trading Days after the applicable Share Delivery Date or (B) notice, written or oral, to any Holder, including by way of public announcement, or through any of its agents, at any time, of its intention not to comply with a request for conversion of any Series A Preferred Shares into shares of Common Stock that is tendered in accordance with the provisions of this Certificate of Designations;

(iv) at any time following the fifth (5th) consecutive Business Day that a Holder's Authorized Share Allocation (as defined in Section 12), determined as of such Business Day, is less than 130% of the sum of (A) the number of shares of Common Stock that such Holder would be entitled to receive upon a conversion of the full Conversion Amount of such Holder's Series A Preferred Shares and (B) the number of shares of Common Stock that such Holder would be entitled to receive upon exercise in full of such Holder's Warrants (without regard to any limitations on exercise set forth in the Warrants, except, solely with respect to the first occurrence of an Authorized Share Failure hereunder, to the extent the Company is complying with the terms set forth in Section 12(b));

(v) the Company's failure to pay to such Holder any amount of Principal, Dividends, Redemption Price, Late Charges or other amounts when and as due under this Certificate of Designations or any other Transaction Document, except, in the case of a failure to pay Dividends and/or Late Charges when and as due, in which case only if such failure continues for a period of at least an aggregate of two (2) Business Days;

(vi) the Company or any of its Subsidiaries, pursuant to or within the meaning of Title 11, U.S. Code, or any similar federal, foreign or state law for the relief of debtors (collectively, "**Bankruptcy Law**"), (A) commences a voluntary case, (B) consents to the entry of an order for relief against it in an involuntary case, (C) consents to the appointment of a receiver, trustee, assignee, liquidator or similar official (a "**Custodian**"), (D) makes a general assignment for the benefit of its creditors or (E) admits in writing that it is generally unable to pay its debts as they become due;

(vii) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that (A) is for relief against the Company or any of its Subsidiaries in an involuntary case, (B) appoints a Custodian of the Company or any of its Subsidiaries or (C) orders the liquidation of the Company or any of its Subsidiaries;

(viii) one or more judgments, orders or awards for the payment of money aggregating (above any insurance coverage or indemnity from a credit worthy party so long as the Company provides such Holder a written statement from such insurer or indemnity provider (which written statement shall be reasonably satisfactory to such Holder) to the effect that such judgment, order or award is covered by insurance or an indemnity and the Company will receive the proceeds of such insurance or indemnity within thirty (30) days of the issuance of such judgment, order or award) in excess of \$20,000,000 are rendered against the Company or any of its Subsidiaries and which judgments, orders or awards are not, within thirty (30) days after the entry thereof, bonded, discharged or stayed pending appeal, or are not discharged within thirty (30) days after the expiration of such stay;

(ix) other than as specifically set forth in another clause of this Section 6(a), the Company breaches any covenant or other term or condition set forth in this Certificate of Designations or in Section 4(u) of the Securities Purchase Agreement, except, in the case of a breach of a covenant or other term or condition of any such agreement which is curable, only if such breach continues for a period of at least an aggregate of thirty (30) days;

(x) if such Holder is a Designee, other than as specifically set forth in another clause of this Section 6(a), the Company breaches any representation, warranty, covenant or other term or condition set forth in Sections 3(b), 3(c), 3(d), 3(e), 3(i), 3(j), 3(k), 3(l), 3(p), 3(q), 3(r), 3(v), 3(ee), 3(ii), 3(mm), 3(nn), 3(qq), 4(v) or 4(z) of the Securities Purchase Agreement, except, in the case of a breach of a covenant or other term or condition of any such agreement which is curable, only if such breach continues for a period of at least an aggregate of thirty (30) days;

(xi) any breach or failure in any respect to comply with Sections 15 or 16 of this Certificate of Designations;

(xii) a false or inaccurate certification (including a false or inaccurate deemed certification) by the Company that the Equity Conditions are satisfied or that there has been no Equity Conditions Failure or as to whether any Triggering Event has occurred;

(xiii) the Company fails to remove any restrictive legend on any certificate or any shares of Common Stock issued to the Holder upon conversion or exercise (as the case may be) of any Securities (as defined in the Securities Purchase Agreement) acquired by the Holder under the Securities Purchase Agreement (including the Series A Preferred Shares) as and when required by such Securities, the Certificate of Designations or the Securities Purchase Agreement, unless otherwise then prohibited by applicable federal securities laws, and any such failure remains uncured for at least five (5) consecutive Trading Days;

(xiv) the Company becomes an "investment company," a company controlled by an "investment company" or an "affiliated person" of, or "promoter" or "principal underwriter" for, an "investment company" as such terms are defined in the Investment Company Act of 1940, as amended; or

(xv) any Event of Default (as defined in the Notes) occurs with respect to any Notes.

(b) Redemption Option Upon Triggering Event. The Company shall promptly, but in any event within one (1) Business Day, notify each Holder in writing upon the Company becoming aware that a Triggering Event has occurred (a “**Notice of Triggering Event**”), and, to the extent required pursuant to Section 28, simultaneously with the delivery of such notice to the Holders, file a Current Report on Form 8-K with the SEC to state such fact. In addition to all other rights of the Holders contained herein, at any time after the earlier of a Holder’s receipt of a Notice of Triggering Event and a Holder becoming aware of a Triggering Event, such Holder shall have the right, at such Holder’s option, to require the Company to redeem, to the fullest extent permitted by law and out of funds lawfully available therefor, all or a portion of such Holder’s Series A Preferred Shares (a “**Triggering Event Redemption**”) in cash by wire transfer of immediately available funds at a price equal to (i) if there is an Equity Conditions Failure (that is not waived in writing by such Holder), the greater of (A) the Conversion Amount being redeemed and (B) the product of (1) the Conversion Amount being redeemed and (2) the quotient determined by dividing (x) the highest Closing Sale Price of the shares of Common Stock during the period beginning on the date immediately preceding such Triggering Event and ending on the date such Holder delivers the Notice of Redemption at Option of Holder (as defined below), by (y) the lowest Conversion Price in effect during such period, in addition to any and all other amounts due hereunder and (ii) otherwise, the Conversion Amount being redeemed (the price set forth in the immediately preceding clause (i) or clause (ii), as applicable, the “**Triggering Event Redemption Price**”).

(c) Mandatory Redemption upon Bankruptcy Triggering Event. Notwithstanding anything to the contrary herein, and notwithstanding any conversion that is then required or in process, upon any Bankruptcy Triggering Event, whether occurring prior to or following the Maturity Date, the Company shall immediately pay to the Holder an amount in cash representing the applicable Triggering Event Redemption Price, without the requirement for any notice or demand or other action by any Holder or any other Person; provided that a Holder may, in its sole and absolute discretion, waive such right to receive payment upon a Bankruptcy Triggering Event, in whole or in part, and any such waiver shall not affect any other rights of such Holder hereunder, including any other rights in respect of such Bankruptcy Triggering Event, any right to conversion, and any right to payment of the Triggering Event Redemption Price or any other Redemption Price, as applicable.

(d) Mechanics of Triggering Event Redemption at Option of Holder. At any time after the earlier of a Holder’s receipt of a Notice of Triggering Event and such Holder becoming aware of a Triggering Event, any Holder may require the Company to redeem, to the fullest extent permitted by law and out of funds lawfully available therefor, up to all of such Holder’s Series A Preferred Shares by delivering written notice thereof (“**Notice of Redemption at Option of Holder**”) to the Company, which Notice of Redemption at Option of Holder shall indicate the number of Series A Preferred Shares that such Holder is electing to redeem. Redemptions required by this Section 6 shall be made in accordance with the provisions of Section 11.

(e) Payment of Triggering Event Redemption Price. Upon the Company’s receipt of a Notice(s) of Redemption at Option of Holder from any Holder, the Company shall as soon as practicable of such receipt notify each other Holder of the Company’s receipt of such notice(s). The Company shall deliver to a Holder an amount in cash equal to the applicable Triggering Event Redemption Price by wire transfer of immediately available funds on the third (3rd) Business Day after such Holder’s delivery of a Notice of Redemption at Option of Holder to the Company; provided that upon a Bankruptcy Triggering Event, the Company shall deliver the applicable Triggering Event Redemption

Price in accordance with Section 6(c) (a **Triggering Event Redemption Date**). To the extent redemptions required by this Section 6 are deemed or determined by a court of competent jurisdiction to be prepayments of the Series A Preferred Shares by the Company, such redemptions shall be deemed to be voluntary prepayments. Notwithstanding anything to the contrary in this Section 6, until the Triggering Event Redemption Price (together with any interest thereon) is paid in full, the Conversion Amount submitted for redemption under this Section 6 (together with any interest thereon) may be (i) converted, in whole or in part, by a Holder into shares of Common Stock pursuant to Section 5 and/or (ii) exchanged, in whole or in part, by a Holder into Exchange Notes and Exchange Series B Warrants pursuant to Section 16. All Series A Preferred Shares converted by a Holder after the delivery of a Notice of Redemption at Option of Holder pursuant to Section 5(c) or exchanged pursuant to Section 16 shall reduce the Series A Preferred Shares required to be redeemed on the related Triggering Event Redemption Date. The Holders and Company agree that in the event of the Company's redemption of any Series A Preferred Shares under this Section 6, the Holders' damages would be uncertain and difficult to estimate because of the parties' inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for the Holders. Accordingly, any redemption premium due under this Section 6 is intended by the parties to be, and shall be deemed, a reasonable estimate of the Holders' actual loss of its investment opportunity and not as a penalty.

(f) Disputes: Miscellaneous. In the event of a dispute as to the determination of the arithmetic calculation of any Triggering Event Redemption Price, such dispute shall be resolved pursuant to Section 19 with the term "Redemption Price" being substituted for the term "Conversion Rate". A Holder's delivery of a Void Optional Redemption Notice (as defined in Section 11(d)) and exercise of its rights following such notice shall not affect the Company's obligations to make any payments which have accrued prior to the date of such notice. In the event of a redemption pursuant to this Certificate of Designations of less than all of the Series A Preferred Shares represented by a particular Series A Preferred Stock Certificate, the Company shall promptly cause to be issued and delivered to the Holder of such Series A Preferred Shares a Series A Preferred Stock Certificate representing the remaining Series A Preferred Shares which have not been redeemed, if necessary.

(7) Other Rights of Holders and the Company

(a) Change of Control Redemption Right. Not less than ten (10) days prior to the consummation of a Change of Control, the Company shall deliver written notice thereof to each Holder (a "**Change of Control Notice**") setting forth a description of such transaction in reasonable detail and the anticipated Change of Control Redemption Date if then known. At any time during the period beginning on the earliest to occur of (x) the public announcement of any oral or written agreement by the Company or any of its Subsidiaries, upon consummation of which the transaction contemplated thereby would reasonably be expected to result in a Change of Control, (y) such Holder's receipt of a Change of Control Notice, and (z) the consummation of such transaction which results in a Change of Control, and ending twenty-five (25) Trading Days after the date of the consummation of such Change of Control, such Holder may require the Company to redeem (a "**Holder Change of Control Redemption**"), to the fullest extent permitted by law and out of funds lawfully available therefor, all or any portion of such Holder's Series A Preferred Shares by delivering written notice thereof (a "**Holder Change of Control Redemption Notice**") to the Company, which Holder Change of Control Redemption Notice shall indicate the Conversion Amount such Holder is electing to require the Company to redeem. Within ten (10) days before or after the applicable

Change of Control, the Company may redeem (a **Company Change of Control Redemption**" and, together with a Holder Change of Control Redemption, a "**Change of Control Redemption**") all but not less than all of such Holder's Series A Preferred Shares by delivering written notice (a "**Company Change of Control Redemption Notice**" and, together with a Holder Change of Control Redemption Notice, a "**Change of Control Redemption Notice**") to the Holder, which Company Change of Control Redemption Notice shall indicate the Conversion Amount the Company is electing to redeem; provided, that a Company Change of Control Redemption shall only be permitted with respect to a Change of Control in which one hundred percent (100%) of the Equity Interests of the Company is purchased for cash and/or Cash Equivalents (as defined in the Notes). If the Company elects to cause a Company Change of Control Redemption pursuant to this Section 7(a), then it must simultaneously take the same action with respect to all Series A Preferred Shares then outstanding. Any Series A Preferred Shares subject to redemption pursuant to this Section 7(a) shall be redeemed by the Company in cash by wire transfer of immediately available funds at a price equal to the sum of (A) the greater of (x) the Conversion Amount of the Series A Preferred Shares being redeemed and (y) the product of (i) the Conversion Amount being redeemed and (ii) the quotient determined by dividing (I) the highest Closing Sale Price of the shares of Common Stock during the period beginning on the date immediately preceding the public announcement of such Change of Control and ending on the date of such Change of Control, by (II) the lowest Conversion Price in effect during such period, in addition to any and all other amounts due hereunder and (B) the Make-Whole Amount (the "**Change of Control Redemption Price**"). The Company shall deliver the Change of Control Redemption Price to each Holder concurrently with the consummation of such Change of Control if such a Change of Control Redemption Notice is received prior to the consummation of such Change of Control and within three (3) Business Days after the delivery to the Company of such notice otherwise (the "**Change of Control Redemption Date**"). Redemptions required by this Section 7(a) shall be made in accordance with the provisions of Section 11 and shall have priority to payments to stockholders in connection with a Change of Control. To the extent redemptions required by this Section 7(a) are deemed or determined by a court of competent jurisdiction to be prepayments of the Series A Preferred Shares by the Company, such redemptions shall be deemed to be voluntary prepayments. Notwithstanding anything to the contrary in this Section 7(a), until the Change of Control Redemption Price (together with any interest thereon) is paid in full, the Conversion Amount submitted for redemption under this Section 7(a) (together with any interest thereon) may be (i) converted, in whole or in part, by a Holder into shares of Common Stock pursuant to Section 5, or in the event the Conversion Date is after the consummation of the Change of Control, shares or equity interests of the Successor Entity substantially equivalent to the Common Stock pursuant to Section 5 and/or (ii) exchanged, in whole or in part, by a Holder into Exchange Notes and Exchange Series B Warrants pursuant to Section 16. All Series A Preferred Shares converted by a Holder after the delivery of a Change of Control Redemption Notice pursuant to Section 5(c) or exchanged pursuant to Section 16 shall reduce the Series A Preferred Shares required to be redeemed on the related Change of Control Redemption Date. The parties hereto agree that in the event of the Company's redemption of any portion of the Series A Preferred Shares under this Section 7(a), the Holders' damages would be uncertain and difficult to estimate because of the parties' inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for the Holders. Accordingly, any redemption premium due under this Section 7(a) is intended by the parties to be, and shall be deemed, a reasonable estimate of the Holders' actual loss of its investment opportunity and not as a penalty.

(b) Assumption and Corporate Events. Upon the occurrence or consummation of any Fundamental Transaction, and it shall be a required condition to the

occurrence or consummation of any Fundamental Transaction that, the Company and the Successor Entity or Successor Entities, jointly and severally, shall succeed to the Company, and the Company shall cause any Successor Entity or Successor Entities to jointly and severally succeed to the Company, and be added to the term "Company" under this Certificate of Designations (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Certificate of Designations referring to the "Company" shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally), and the Successor Entity or Successor Entities, jointly and severally with the Company, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Certificate of Designations with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company in this Certificate of Designations. In addition to and not in substitution for any other rights hereunder, prior to the occurrence or consummation of any Fundamental Transaction pursuant to which holders of shares of Common Stock become entitled to receive securities, cash, assets or other property with respect to or in exchange for shares of Common Stock (a "**Corporate Event**"), the Company shall make appropriate provision to ensure that, and any applicable Successor Entity or Successor Entities shall ensure that, and it shall be a required condition to the occurrence or consummation of such Corporate Event that, such Holder will have the right to receive upon conversion of such Holder's Series A Preferred Shares at any time after the occurrence or consummation of such Corporate Event at its option upon surrender of such Holder's Series A Preferred Shares upon the occurrence or consummation of the Corporate Event, shares of common stock or capital stock of the Successor Entity or Successor Entities, or if so elected by the Holder in lieu of the shares of Common Stock (or other securities, cash, assets or other property) such Holder is entitled to receive upon the conversion of such Holder's Series A Preferred Shares prior to such Corporate Event (but not in lieu of such items still issuable under Sections 4 and 7(c), which shall continue to be receivable on the Common Stock or on such shares of stock, securities, cash, assets or any other property otherwise receivable with respect to or in exchange for shares of Common Stock), such shares of stock, securities, cash, assets or any other property whatsoever (including warrants or other purchase or subscription rights and any shares of Common Stock) which the Holders would have been entitled to receive upon the occurrence or consummation of such Corporate Event or the record, eligibility or other determination date for the event resulting in such Corporate Event, had such Holder's Series A Preferred Shares been converted immediately prior to such Corporate Event or the record, eligibility or other determination date for the event resulting in such Corporate Event. Provision made pursuant to the preceding sentence shall be in a form and substance reasonably satisfactory to the Required Holders. The provisions of this Section shall apply similarly and equally to successive Fundamental Transactions and Corporate Events and shall be applied without regard to any limitations on the conversion of the Series A Preferred Shares.

(c) Purchase Rights. If at any time the Company grants, issues or sells any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of Common Stock (the "**Purchase Rights**"), then the Holders will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which such Holder could have acquired if such Holder had held the number of shares of Common Stock acquirable upon complete conversion of such Holder's Series A Preferred Shares (without regard to any limitations or restrictions on conversions of the Series A Preferred Shares) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or,

if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights.

(8) Optional Redemption at the Holder's Election. At any time or times (i) during the period commencing on May 15, 2021 and ending on August 15, 2021, inclusive, (ii) during the period commencing on May 15, 2022 and ending on August 15, 2022, inclusive, (iii) during the period commencing on November 15, 2024 and ending on February 15, 2025, inclusive, and (iv) in the event the Company fails to obtain Stockholder Approval on or prior to the Stockholder Meeting Deadline (each of the events described in the immediately preceding clauses (i) through (iv), a **"Holder Optional Redemption Trigger Event"**); provided, however, that in cases of the immediately preceding clauses (i) and (ii) the Company shall have issued to the Buyers less than \$50,000,000 of aggregate principal amount of SPA Notes, each Holder shall have the right, in its sole and absolute discretion, to require that the Company redeem (a **"Holder Optional Redemption"**), to the fullest extent permitted by law and out of funds lawfully available therefor, all or any portion of the Conversion Amount of such Holder's Series A Preferred Shares then outstanding by delivering written notice thereof (a **"Holder Optional Redemption Notice"** and the date such Holder delivers such notice to the Company, a **"Holder Optional Redemption Notice Date"**) to the Company which notice shall state (i) the number of Series A Preferred Shares that is being redeemed by such Holder, (ii) the date on which such Holder Optional Redemption shall occur, which date shall be the thirtieth (30th) day from the applicable Holder Optional Redemption Notice Date (or, if such date falls on a day other than a Business Day, the next day that is a Business Day) (a **"Holder Optional Redemption Date"**) and (iii) the wire instructions for the payment of the applicable Holder Optional Redemption Price (as defined below) to such Holder. The portion of such Holder's Series A Preferred Shares subject to redemption pursuant to this Section 8 shall be redeemed by the Company in cash at a price equal to the product determined by multiplying (i) the applicable Holder Optional Redemption Premium and (ii) the Conversion Amount being redeemed, including, without limitation, any accrued and unpaid Dividends on such Conversion Amount and any accrued and unpaid Late Charges (as defined in Section 19(d)) on such Conversion Amount and Dividends, if any, through the applicable Holder Optional Redemption Date (a **"Holder Optional Redemption Price"**). On the applicable Holder Optional Redemption Date, the Company shall deliver or shall cause to be delivered to each Holder the applicable Holder Optional Redemption Price in cash by wire transfer of immediately available funds pursuant to wire instructions provided by such Holder in writing to the Company. Notwithstanding anything to the contrary in this Section 8, until the applicable Holder Optional Redemption Price is paid, in full, the Redemption Amount that is subject to the applicable Holder Optional Redemption may be (i) converted, in whole or in part, by the Holders into shares of Common Stock pursuant to Section 5 and/or (ii) exchanged, in whole or in part, by a Holder into Exchange Notes and Exchange Series B Warrants pursuant to Section 16. All Series A Preferred Shares converted by a Holder after the delivery of a Holder Optional Redemption Notice pursuant to Section 5(c) or exchanged pursuant to Section 16 shall reduce the Series A Preferred Shares required to be redeemed on the Holder Optional Redemption Date. Holder Optional Redemptions made pursuant to this Section 8 shall be made in accordance with Section 11. To the extent redemptions required by this Section 8 are deemed or determined by a court of competent jurisdiction to be prepayments of the Series A Preferred Shares by the Company, such redemptions shall be deemed to be voluntary prepayments. The parties hereto agree that in the event of the Company's redemption of any portion of a Holder's Series A Preferred Shares under this Section 8, such Holder's damages would be uncertain and difficult to estimate because of the parties' inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for such Holder.

(9) Mandatory Redemption at Maturity. If any Series A Preferred Shares remain outstanding on the Maturity Date, the Company shall redeem such Series A Preferred Shares in cash in an amount equal to the outstanding Conversion Amount for each such Series A Preferred

Share (the “**Maturity Date Redemption Price**”). The Company shall pay the Maturity Date Redemption Price on the Maturity Date by wire transfer of immediately available funds to an account designated in writing by such Holder. All redemptions shall be made on a pro-rata basis to all holders of outstanding Series A Preferred Shares.

(10) Redemption at the Option of the Company. At any time during the period commencing on May 15, 2022 and ending on August 15, 2022, inclusive (the “**Company Optional Trigger Date**”), so long as (i) the Company shall have issued to the Buyers less than \$50,000,000 of aggregate principal amount of SPA Notes and (ii) there has been no Equity Conditions Failure during the period beginning on the applicable Company Optional Redemption Notice Date (as defined below) through the applicable Company Optional Redemption Date (as defined below), the Company shall have the right to redeem all, but not less than all, of the Conversion Amount then remaining under the Series A Preferred Shares then outstanding (a “**Company Optional Redemption Amount**”) as designated in the applicable Company Optional Redemption Notice on the applicable Company Optional Redemption Date (each as defined below) (a “**Company Optional Redemption**”). The applicable Company Optional Redemption Amount shall be redeemed by the Company by delivery of the applicable Company Optional Redemption Price on the applicable Company Optional Redemption Date in cash by wire transfer of immediately available funds pursuant to wire instructions provided by the Holder in writing to the Company at a price equal to 115% of the Conversion Amount to be redeemed, including, without limitation, any accrued and unpaid Dividends on such Conversion Amount and any accrued and unpaid Late Charges on such Conversion Amount and Dividends, if any through the applicable Company Optional Redemption Date (a “**Company Optional Redemption Price**”). The Company may exercise its right to require redemption under this Section 10 by delivering within five (5) Trading Days of the Company Optional Trigger Date a written notice thereof to all, but not less than all, of the Holders (a “**Company Optional Redemption Notice**” and the date all of the Holders receive such notice is referred to as a **Company Optional Redemption Notice Date**”). Each Company Optional Redemption Notice shall be irrevocable. Each Company Optional Redemption Notice shall (i) state the date on which the applicable Company Optional Redemption shall occur (a “**Company Optional Redemption Date**”), which date shall be the ninetieth (90th) day following the applicable Company Optional Redemption Notice Date; provided that if such date falls on a day that is not a Business Day, the next day that is a Business Day and (ii) state the aggregate Company Optional Redemption Amount which the Company has elected to be subject to Company Optional Redemption from the Holders pursuant to this Section 10 on the applicable Company Optional Redemption Date and (iii) certify that there has been no Equity Conditions Failure on the applicable Company Optional Redemption Notice Date. If the Company confirmed that there was no such Equity Conditions Failure as of the applicable Company Optional Redemption Notice Date but an Equity Conditions Failure occurs between the applicable Company Optional Redemption Notice Date and the applicable Company Optional Redemption Date (a “**Company Optional Redemption Interim Period**”), the Company shall provide the Holders a subsequent written notice to that effect. If there is an Equity Conditions Failure during such Company Optional Redemption Interim Period, then the applicable Company Optional Redemption shall be null and void with respect to all or any part designated by such Holder of the applicable unconverted Company Optional Redemption Amount and such Holder shall be entitled to all the rights of a Holder with respect to such applicable Company Optional Redemption Amount. Notwithstanding anything to the contrary in this Section 10, until the applicable Company Optional Redemption Price is paid, in full, the applicable Company Optional Redemption Amount may be (i) converted, in whole or in part, by the Holders into shares of Common Stock pursuant to Section 5 and/or (ii) exchanged, in whole or in part, by a Holder into Exchange Notes and Exchange Series B Warrants pursuant to Section 16. All Conversion Amounts converted or exchanged by a Holder after the applicable Company Optional Redemption Notice Date shall reduce such Holder’s Company Optional Redemption Amount required to be redeemed on the applicable Company Optional Redemption Date. Company Optional Redemptions made

pursuant to this Section 10 shall be made in accordance with Section 11. To the extent redemptions required by this Section 10 are deemed or determined by a court of competent jurisdiction to be prepayments of the Series A Preferred Shares by the Company, such redemptions shall be deemed to be voluntary prepayments. The parties hereto agree that in the event of the Company's redemption of any portion of the Series A Preferred Shares under this Section 10, the Holders' damages would be uncertain and difficult to estimate because of the parties' inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for the Holders. For the avoidance of doubt, any Conversion Amount that is subject to a Conversion Notice delivered to the Company may no longer be subject to a Company Optional Redemption even if the shares issuable upon such conversion have not been delivered on or prior to the Company Optional Redemption Date. If the Company elects to cause a Company Optional Redemption pursuant to this Section 10, then it must simultaneously take the same action in the same proportion with respect to all Series A Preferred Shares to the extent practicable or, if the pro rata basis is not practicable for any reason, by lot or such other equitable method as the Company determines in good faith.

(11) Redemptions.

(a) General. The Company shall pay the applicable Redemption Price on the applicable Redemption Date to each Holder in cash by wire transfer of immediately available funds pursuant to wire instructions provided by such Holder in writing to the Company on the applicable due date. In the event of a redemption of less than all of the Conversion Amount of a Holder's Series A Preferred Shares, the Company shall promptly cause to be issued and delivered to the Holder a new Series A Preferred Stock Certificate representing the outstanding Stated Value which has not been redeemed and any accrued Dividend on such Stated Value and any accrued and unpaid Late Charges on such Stated Value and Dividends, if any, which shall be calculated as if no Redemption Notice has been delivered. If the Company is unable to redeem all of the Series A Preferred Shares submitted for redemption, the Company shall in addition to any remedy such Holder may have under this Certificate of Designations, pay to each Holder interest at the rate of one and one-half percent (1.5%) per month (prorated for partial months) in respect of each unredeemed Series A Preferred Share until paid in full.

(b) Redemption by Other Holders. Upon the Company's receipt of notice from any Holder or holder of Notes, if any, for redemption or repayment as a result of an event or occurrence substantially similar to the events or occurrences described in Section 6(b), Section 7(a) or Section 8 or pursuant to analogous provisions set forth in the Notes (each, an "**Other Redemption Notice**"), the Company shall promptly, but no later than one (1) Business Day of its receipt thereof, forward to each Holder a copy of such notice. If the Company receives a Redemption Notice and one or more Other Redemption Notices, during the seven (7) Business Day period beginning on and including the date which is three (3) Business Days prior to the Company's receipt of such Holder's Redemption Notice and ending on and including the date which is three (3) Business Days after the Company's receipt of a Holder's Redemption Notice and the Company is unable to redeem the entire Redemption Prices and such other amounts designated in such Redemption Notice and such Other Redemption Notices received during such seven (7) Business Day period, then the Company shall redeem a pro rata amount from each Holder and holder of Notes, if any, based on the Stated Value of the Series A Preferred Shares and principal amount of Notes submitted for redemption pursuant to such Redemption Notice and such Other Redemption Notices received by the Company during such seven (7) Business Day period.

(c) Insufficient Assets. If upon a Redemption Date, the assets of the Company are insufficient to pay the applicable Redemption Price, the Company shall

redeem on such date, pro rata among the Holders and the Holders of Notes, if any, to be redeemed in proportion to the aggregate number of Series A Preferred Shares then held by each such holder and principal amounts of Notes outstanding on the applicable Redemption Date. Dividends on the Stated Value of the Series A Preferred Shares that have not been redeemed shall continue to accrue until such time as the Company redeems such Series A Preferred Shares.

(d) Void Redemption. In the event that the Company does not pay a Redemption Price within the applicable time period, at any time thereafter and until the Company pays such unpaid applicable Redemption Price in full, a Holder shall have the option to, in lieu of redemption, require the Company to promptly return to such Holder any or all of the Series A Preferred Shares that were submitted for redemption by such Holder and for which the applicable Redemption Price (together with any Late Charges thereon) has not been paid, by sending written notice thereof to the Company (the “**Void Optional Redemption Notice**”). Upon the Company’s receipt of such Void Optional Redemption Notice, (i) the Redemption Notice of Holder shall be null and void with respect to those Series A Preferred Shares subject to the Void Optional Redemption Notice and (ii) the Company shall immediately return any Series A Preferred Shares subject to the Void Optional Redemption Notice. A Holder’s delivery of a Void Optional Redemption Notice and exercise of its rights following such notice shall not affect the Company’s obligations to make any payments of any amounts, including Late Charges, which have accrued prior to the date of such notice with respect to the Conversion Amount subject to such notice.

(12) Reservation of Shares.

(a) Reservation. The Company shall at all times reserve out of its authorized and unissued shares of Common Stock a number of shares of Common Stock for the Series A Preferred Shares equal to 130% of the maximum number of shares of Common Stock issuable with respect to the Series A Preferred Shares. So long as any of Series A Preferred Shares are outstanding, the Company shall take all action necessary to reserve and keep available out of its authorized and unissued Common Stock, solely for the purpose of effecting the conversion of the Series A Preferred Shares, at least the number of shares of Common Stock specified above in this Section 12(a) as shall from time to time be necessary to effect the conversion of all of the Series A Preferred Shares then outstanding, assuming that the Conversion Price at the applicable date of determination shall be the Conversion Price through the Maturity Date (the “**Required Reserve Amount**”). The initial number of shares of Common Stock reserved for conversions of the Series A Preferred Shares and for exercises of the Warrants and each increase in the number of shares so reserved shall be allocated among the Holders and the holders of the Warrants pro rata based on the total number of shares of Common Stock issuable upon conversion of the Series A Preferred Shares then outstanding and upon exercise of the Warrants then outstanding (the “**Authorized Share Allocation**”). In the event that a holder shall sell or otherwise transfer such holder’s Series A Preferred Shares or Warrants, each transferee shall be allocated a pro rata portion of such holder’s Authorized Share Allocation with respect to such portion of Series A Preferred Shares and/or Warrants sold or otherwise transferred. Any shares of Common Stock reserved and allocated to any Person which ceases to hold any Series A Preferred Shares or Warrants shall be allocated to the Holders and the remaining holders of Warrants, pro rata based on the total number of shares of Common Stock issuable upon conversion of the Series A Preferred Shares then outstanding and upon exercise of the Warrants then outstanding.

(b) Insufficient Authorized Shares. If at any time while any of the Series A Preferred Shares remain outstanding the Company does not have a sufficient number of

authorized and unreserved shares of Common Stock to satisfy its obligation to reserve for issuance upon conversion of the Series A Preferred Shares at least a number of shares of Common Stock equal to the Required Reserve Amount (an “**Authorized Share Failure**”), then the Company shall use its reasonable best efforts to promptly take all action necessary to increase the Company’s authorized shares of Common Stock to an amount sufficient to allow the Company to reserve the Required Reserve Amount for the Series A Preferred Shares then outstanding. Without limiting the generality of the foregoing sentence, as soon as practicable after the date of the occurrence of an Authorized Share Failure, but in no event later than ninety (90) days after the occurrence of such Authorized Share Failure, the Company shall either (x) obtain the written consent of its stockholders for the approval of an increase in the number of authorized shares of Common Stock and provide each stockholder with an information statement with respect thereto or (y) hold a meeting of its stockholders for the approval of an increase in the number of authorized shares of Common Stock. In connection with such meeting, the Company shall provide each stockholder with a proxy statement and shall use its reasonable best efforts to solicit its stockholders’ approval of such increase in authorized shares of Common Stock and to cause the Board to recommend to the stockholders that they approve such proposal. Notwithstanding the foregoing, if during any such time of an Authorized Share Failure, the Company is able to obtain the written consent of a majority of the shares of its issued and outstanding Common Stock to approve the increase in the number of authorized shares of Common Stock, the Company may satisfy this obligation by obtaining such consent and submitting for filing with the SEC an Information Statement on Schedule 14C.

(13) Voting Rights. Each Holder shall be entitled to the whole number of votes equal to the number of shares of Common Stock into which such Holder’s Series A Preferred Shares would be convertible on the record date for the vote or consent of stockholders (without regard to any limitations on conversion), and shall otherwise have voting rights and powers equal to the voting rights and powers of the Common Stock; provided, however, that the Required Holders, by written notice to the Company, may terminate the voting rights set forth in this Section 13 effective at any time from and after the registration of the Series A Preferred Shares under the Exchange Act and, provided, further that solely for the purposes of calculating the number of votes to which each Series A Preferred Share is entitled, the Conversion Price shall be the higher of (i) the Conversion Price then in effect and (ii) \$2.86 (as adjusted for any stock dividend, stock split, stock combination, reclassification or similar transaction relating to the Common Stock occurring after the Subscription Date). Each Holder shall be entitled to receive the same prior notice of any stockholders’ meeting as is provided to the holders of Common Stock in accordance with the bylaws of the Company, as well as prior notice of all stockholder actions to be taken by legally available means in lieu of a meeting, and shall vote as a class with the holders of Common Stock as if they were a single class of securities upon any matter submitted to a vote of stockholders, except those matters required by law or by the terms hereof to be submitted to a class vote of the Holders, in which case the Holders only shall vote as a separate class.

(14) Equal Treatment of Holders. No consideration shall be offered or paid to any of the Holders to amend or waive or modify any provision of the Series A Preferred Shares, unless the same consideration (other than the reimbursement of legal fees) is also offered to all of the Holders. This provision constitutes a separate right granted to each of the Holders by the Company and shall not in any way be construed as the Holders acting in concert or as a group with respect to the purchase, disposition or voting of securities or otherwise.

(15) No Dilutive Issuances. Until all of the Series A Preferred Shares have been converted, redeemed or otherwise satisfied in accordance with their terms, the Company shall not, and the Company shall not permit any of its Subsidiaries to, without the prior written consent of the Required Holders, directly or indirectly, effect a Dilutive Issuance (but excluding

shares of Common Stock deemed to have been issued or sold by the Company (as determined pursuant to Section 5(g)) in connection with any Permitted Securities) on or prior to the date that is ninety (90) days following the Stockholder Meeting Deadline.

(16) Exchange. From and after the consummation of an Additional Closing any Holder may, in its sole and absolute discretion, exchange (an “**Exchange**”) all or any portion of such Holder’s Series A Preferred Shares (the Stated Value of the Series A Preferred Shares elected to be exchanged by such Holder, the “**Exchange Amount**”), without any additional consideration, for (i) Senior Secured Notes of the Company in the form attached as Exhibit B to the Securities Purchase Agreement (the “**Exchange Notes**”) and (ii) Series B Warrants to purchase Common Stock in the form attached as Exhibit C-2 to the Securities Purchase Agreement (the “**Exchange Series B Warrants**”). In the event that such Holder exercises this right, the Company shall take all actions necessary, advisable or reasonably requested by such Holder to cause such Exchange to be promptly consummated in favor of such Holder, and to promptly issue such Exchange Notes and Exchange Series B Warrants. The Exchange Notes (i) shall be of like tenor with the Notes issued on an Additional Closing pursuant to the Securities Purchase Agreement, (ii) shall represent, as indicated on the face of such new Exchange Note, the Exchange Amount, (iii) shall have an issuance date, as indicated on the face of such new Exchange Note, which is the date of the issuance of the applicable Exchange Note, (iv) shall have the same rights and conditions as the Notes issued on an Additional Closing pursuant to the Securities Purchase Agreement, including, without limitation, with respect to its ranking and security interest, and (v) shall represent accrued and unpaid Interest and Late Charges (each as defined in the Notes), if any, on the Principal (as defined in the Notes) and Interest of such Principal, equal to any accrued and unpaid Dividends and Late Charges, if any, on the Stated Value and Dividends of the Series A Preferred Shares surrendered in such Exchange through the date of the consummation of such Exchange. The Exchange Series B Warrants (i) shall be of like tenor with the Series B Warrants issued on the Initial Closing (as defined in the Securities Purchase Agreement) pursuant to the Securities Purchase Agreement, (ii) shall represent, as indicated on the face of such Exchange Series B Warrant, the right to purchase a number of Series B Warrant Shares equal to the applicable Exchange Amount divided by the Conversion Price as in effect on the applicable date such Exchange is consummated rounded up to the nearest whole number, (iii) shall have an issuance date, as indicated on the face of such new Warrant which is the date of the issuance of the applicable Exchange Series B Warrants, and (iv) shall have the same rights and conditions as the Series B Warrants issued on the Initial Closing pursuant to the Securities Purchase Agreement. For the purposes of Rule 144, the Company acknowledges and agrees that the holding period of any Exchange Note and Exchange Series B Warrants may be tacked onto the holding period of the Series A Preferred Shares surrendered in such Exchange, and the Company agrees not to take a position contrary to this Section 16. Following any such exchange pursuant to this Section 16, such Holder’s Series A Preferred Shares shall remain outstanding in accordance with its terms as to all amounts payable hereunder that have not been exchanged for Exchange Notes and Series B Warrants in the applicable Exchange, if any. Upon the consummation of an Exchange any shares of Common Stock reserved with respect to the Series A Preferred Shares being exchanged shall become available for any shares of Common Stock issuable with respect to the Exchange Series B Warrants issued in such Exchange.

(17) Vote to Change the Terms of or Issue Series A Preferred Shares. In addition to any other rights provided by law, except where the vote or written consent of the holders of a greater number of shares is required by law or by another provision of the Certificate of Incorporation, the affirmative vote of the Required Holders at a meeting duly called for such purpose or the written consent without a meeting of the Required Holders, voting together as a single class, shall be required before the Company may: (a) amend or repeal any provision of, or add any provision to, the Certificate of Incorporation or bylaws, or file any articles of amendment, certificate of designations, preferences, limitations and relative rights of any series

of preferred stock, if such action would adversely alter or change the preferences, rights, privileges or powers of, or restrictions provided for the benefit of the Series A Preferred Shares, regardless of whether any such action shall be by means of amendment to the Certificate of Incorporation or by merger, consolidation or otherwise; (b) increase or decrease (other than by conversion) the authorized number of shares of Series A Preferred Shares; (c) change, amend or waive any provision of the Certificate of Designations with respect to the Series A Preferred Shares or (d) whether or not prohibited by the terms of the Series A Preferred Shares, circumvent a right of the Series A Preferred Shares by merger, consolidation or otherwise. Any amendment or waiver to this Certificate of Incorporation made in conformity with the provisions of this Section 18 shall be binding on all Holders. No such amendment or waiver shall be effective to the extent that it applies to less than all of the Holders. No vote of any class of stock other than the Series A Preferred Shares shall be required to change, amend or waive any provision of the Certificate of Designations with respect to the Series A Preferred Shares except as required by law or by another provision of the Certificate of Incorporation,

(18) Dispute Resolution. In the case of a dispute as to the determination of the Weighted Average Price, Closing Bid Price or the Closing Sale Price or the arithmetic calculation of the Conversion Rate, the Conversion Price or any Redemption Price, the Company shall pay the applicable Redemption Price that is not disputed or shall instruct the Transfer Agent to issue to such Holder the number of shares of Common Stock that is not disputed, and the Company shall submit the disputed determinations or arithmetic calculations within two (2) Business Days of the delivery of the Conversion Notice or Redemption Notice or other event giving rise to such dispute, as the case may be, to the applicable Holder. If such Holder and the Company are unable to agree upon such determination or calculation within three (3) Business Days of such disputed determination or arithmetic calculation being submitted to such Holder, then the Company shall, within two (2) Business Days submit (a) the disputed determination of the Weighted Average Price, the Closing Bid Price or the Closing Sale Price to an independent, reputable investment bank selected by such Holder and approved by the Company, such approval not to be unreasonably withheld, conditioned or delayed, or (b) the disputed arithmetic calculation of the Conversion Rate, Conversion Price or any Redemption Price to an independent, outside accountant, selected by such Holder and approved by the Company, such approval not to be unreasonably withheld, conditioned or delayed. The Company, at its expense, shall cause the investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the applicable Holder of the results no later than five (5) Business Days from the time it receives the disputed determinations or calculations. Such investment bank's or accountant's determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error.

(19) General Provisions.

(a) In addition to the above provisions with respect to Series A Preferred Shares, such Series A Preferred Shares shall be subject to and be entitled to the benefit of the provisions set forth in the Certificate of Incorporation of the Company with respect to preferred stock of the Company generally; provided, however, that in the event of any conflict between such provisions, the provisions set forth in this Certificate of Designations shall control.

(b) Any Series A Preferred Shares which are converted, repurchased or redeemed in full shall be automatically be deemed cancelled and shall not be reissued, sold or transferred.

(c) Whenever notice is required to be given under this Certificate of Designations, unless otherwise provided herein, such notice shall be given in accordance with Section 9(f) of the Securities Purchase Agreement.

(d) Whenever any payment of cash is to be made by the Company to any Person pursuant to this Certificate of Designations, such payment shall be made in lawful money of the United States of America via wire transfer of immediately available funds to an account designated by such Holder; provided, that a Holder, upon written notice to the Company, may elect to receive a payment of cash in lawful money of the United States of America by a check drawn on the account of the Company and sent via overnight courier service to such Person at such address as previously provided to the Company in writing (which address, in the case of each of the Buyers, shall initially be as set forth on the Schedule of Buyers attached to the Securities Purchase Agreement). Whenever any amount expressed to be due by the terms of this Certificate of Designations is due on any day which is not a Business Day, the same shall instead be due on the next succeeding day which is a Business Day. Any amount due under the Transaction Documents which is not paid when due shall result in a late charge being incurred and payable by the Company in an amount equal to interest on such amount at the rate of six percent (6.0%) per annum from the date such amount was due until the same is paid in full ("**Late Charge**").

(e) To the extent permitted by law, the Company hereby waives demand, notice, protest and all other demands and notices in connection with the delivery, acceptance, performance, default or enforcement of this Certificate of Designations.

(20) Governing Law; Jurisdiction; Jury Trial. This Certificate of Designations shall be governed by and construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Certificate of Designations shall be governed by, the internal laws of the State of Delaware, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Delaware or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of Delaware. The Company hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in The City of New York, Borough of Manhattan, for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. The Company hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof to the Company at the address set forth in Section 9(f) of the Securities Purchase Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Nothing contained herein shall be deemed or operate to preclude the Holders from bringing suit or taking other legal action against the Company in any other jurisdiction to collect on the Company's obligations to the Holders, to realize on any collateral or any other security for such obligations, or to enforce a judgment or other court ruling in favor of the Holders. **THE COMPANY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE TO, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH OR ARISING OUT OF THIS CERTIFICATE OF DESIGNATIONS OR ANY TRANSACTION CONTEMPLATED HEREBY.**

(21) Lost or Stolen Certificates. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of any Series A Preferred Stock Certificates representing the Series A Preferred Shares, and, in the case of loss, theft or destruction, of an indemnification undertaking by such Holder to the Company in customary form (but without any obligation to post a surety or other bond) and, in the case of mutilation, upon surrender and cancellation of the Series A Preferred Stock Certificate(s), the Company

shall execute and deliver new preferred stock certificate(s) of like tenor and date within five (5) Business Days of receipt of such evidence.

(22) Remedies, Characterizations, Other Obligations, Breaches and Injunctive Relief. The remedies provided in this Certificate of Designations and any of the other Transaction Documents shall be cumulative and in addition to all other remedies available under this Certificate of Designations, at law or in equity (including a decree of specific performance and/or other injunctive relief). No remedy contained herein shall be deemed a waiver of compliance with the provisions giving rise to such remedy. Nothing herein shall limit a Holder's right to pursue actual damages for any failure by the Company to comply with the terms of this Certificate of Designations. The Company covenants to each Holder that there shall be no characterization concerning this instrument other than as expressly provided herein. Amounts set forth or provided for herein with respect to payments, conversion, redemption and the like (and the computation thereof) shall be the amounts to be received by such Holder thereof and shall not, except as expressly provided herein, be subject to any other obligation of the Company (or the performance thereof). The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holders and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the Holders shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

(23) Construction; Headings. This Certificate of Designations shall be deemed to be jointly drafted by the Company and all Buyers and shall not be construed against any Person as the drafter hereof. The headings of this Certificate of Designations are for convenience of reference and shall not form part of, or affect the interpretation of, this Certificate of Designations.

(24) Failure or Indulgence Not Waiver. No failure or delay on the part of a Holder in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege.

(25) Transfer of Series A Preferred Shares. Each Holder may offer, sell, assign or transfer all or any portion of such Holder's Series A Preferred Shares, the accompanying rights thereunder and shares of Common Stock issued pursuant to the terms hereof without the consent of the Company, subject only to the provisions of Section 2(f) of the Securities Purchase Agreement. Holders shall have such right to transfer and to exercise rights with respect to fractional Series A Preferred Shares and any redemptions of Series A Preferred Shares by the Company shall be made calculating the number of applicable Series A Preferred Shares to one-ten thousandth of a Series A Preferred Share.

(26) Series A Preferred Share Register. The Company shall maintain at its principal executive offices (or such other office or agency of the Company as it may designate by notice to the Holders), a register for the Series A Preferred Shares, in which the Company shall record the name and address of the persons in whose name the Series A Preferred Shares have been issued, as well as the name and address of each transferee. The Company may treat the person in whose name any Series A Preferred Share is registered on the register as the owner and holder thereof for all purposes, notwithstanding any notice to the contrary, but in all events recognizing any properly made transfers.

(27) Stockholder Matters. Any stockholder action, approval or consent required, desired or otherwise sought by the Company pursuant to the rules and regulations of the Principal Market, the DGCL, this Certificate of Designations or otherwise with respect to the

issuance of the Series A Preferred Shares or the Common Stock issuable upon conversion thereof may be effected by written consent of the Company's stockholders or at a duly called meeting of the Company's stockholders, all in accordance with the applicable rules and regulations of the Principal Market and the DGCL. This provision is intended to comply with the applicable sections of the DGCL permitting stockholder action, approval and consent affected by written consent in lieu of a meeting.

(28) Disclosure. Except if an individual affiliated with such Holder serves on the Board, including pursuant to the Governance Agreement, upon receipt or delivery by the Company of any notice in accordance with the terms of this Certificate of Designations, unless the Company has in good faith determined that the matters relating to such notice do not constitute material, nonpublic information relating to the Company or its Subsidiaries, the Company shall contemporaneously with any such receipt or delivery publicly disclose such material, nonpublic information on a Current Report on Form 8-K or otherwise. In the event that the Company believes that a notice contains material, nonpublic information relating to the Company or its Subsidiaries, the Company so shall indicate to such Holder contemporaneously with delivery of such notice, and in the absence of any such indication, such Holder shall be allowed to presume that all matters relating to such notice do not constitute material, nonpublic information relating to the Company or its Subsidiaries.

(29) Independent Nature of Holders' Obligations and Rights. The rights and obligations of each Holder under any Transaction Document are several and not joint with the obligations of any other Holder, and no Holder shall be responsible in any way for the performance of the obligations of any other Holder under any Transaction Document. Nothing contained herein or in any other Transaction Document, and no action taken by any Holder pursuant hereto or thereto, shall be deemed to constitute such Holder as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Holders are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by the Transaction Documents. Each Holder shall be entitled to independently protect and enforce its rights, including, without limitation, the rights arising out of this Certificate of Designations or out of any other Transaction Documents, and it shall not be necessary for any other Holder to be joined as an additional party in any proceeding for such purpose.

(30) Payment of Collection, Enforcement and Other Costs. If (a) any Series A Preferred Shares of a Holder is placed in the hands of an attorney for collection or enforcement or is collected or enforced through any legal proceeding or a Holder otherwise takes action to collect amounts due under such Holder's Series A Preferred Shares or to enforce the provisions of such Series A Preferred Shares or (b) there occurs any bankruptcy, reorganization, receivership of the Company or other proceedings affecting Company creditors' rights and involving a claim under a Holder's Series A Preferred Shares, then the Company shall pay the costs incurred by such Holder for such collection, enforcement or action or in connection with such bankruptcy, reorganization, receivership or other proceeding, including, but not limited to, attorneys' fees and disbursements.

(31) Certain Definitions. For purposes of this Certificate of Designations the following terms shall have the following meanings:

(a) **"Additional Closing"** shall have the meaning ascribed to such term in the Securities Purchase Agreement.

(b) **"Additional Closing Date"** shall have the meaning ascribed to such term in the Securities Purchase Agreement.

(c) **"Affiliate"** shall have the meaning ascribed to such term in Rule 405 of the Securities Act and, for purposes of Section 3(e), shall also include with respect to any Person, any other Person whose securities would be deemed to be constructively owned by such first Person, owned by a single "entity" with respect to such first Person as defined in Section 1.382-3(a)(1) of the Treasury Regulations, or otherwise aggregated with shares owned by such first Person, pursuant to the provisions of Section 382 of the Code and the Treasury Regulations promulgated thereunder.

(d) **"Approved Investment"** shall have the meaning ascribed to such term in the Securities Purchase Agreement.

(e) **"Approved Stock Plan"** means any employee benefit plan which has been approved by the Board, pursuant to which the Company's securities may be issued to any employee, officer or director for services provided to the Company.

(f) **"Bloomberg"** means Bloomberg Financial Markets.

(g) **"Business Day"** means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed.

(h) **"Buyer"** shall have the meaning ascribed to such term in the Securities Purchase Agreement.

(i) **"Calendar Quarter"** means each of: the period beginning on and including January 1 and ending on and including March 31; the period beginning on and including April 1 and ending on and including June 30; the period beginning on and including July 1 and ending on and including September 30; and the period beginning on and including October 1 and ending on and including December 31.

(j) **"Capital Stock"** means:

(i) in the case of a corporation, corporate stock;

(ii) in the case of an association or business entity, any and all shares, interests, participations, rights or other equivalents (however designated) of corporate stock;

(iii) in the case of a partnership or limited liability company, partnership or membership interests (whether general or limited); and

(iv) any other interest or participation that confers on a Person the right to receive a share of the profits and losses of, or distributions of assets of, the issuing Person.

(k) **"Change of Control"** means any Fundamental Transaction other than (i) an Approved Investment, (ii) any reorganization, recapitalization or reclassification of the Common Stock in which holders of the Company's voting power immediately prior to such reorganization, recapitalization or reclassification continue after such reorganization, recapitalization or reclassification to hold publicly traded securities and, directly or indirectly, are, in all material respects, the holders of a of the voting power of the surviving entity (or entities with the authority or voting power to elect the members of the board of directors (or their equivalent if other than a corporation) of such entity or entities) after such reorganization, recapitalization or reclassification or (iii) pursuant to a

migratory merger effected solely for the purpose of changing the jurisdiction of incorporation of the Company; provided, however, that a Change of Control will be deemed not to have occurred if ninety percent (90%) or more of the consideration in the transaction or transactions which otherwise would constitute a Change of Control consists of shares of common stock, depositary receipts or other certificates representing common equity interests traded or to be traded immediately following such transaction on an Eligible Market.

(l) **“Closing Bid Price”** and **“Closing Sale Price”** means, for any security as of any date, the last closing bid price and last closing trade price, respectively, for such security on the Principal Market, as reported by Bloomberg, or, if the Principal Market begins to operate on an extended hours basis and does not designate the closing bid price or the closing trade price, as the case may be, then the last bid price or the last trade price, respectively, of such security prior to 4:00:00 p.m., New York time, as reported by Bloomberg, or, if the Principal Market is not the principal securities exchange or trading market for such security, the last closing bid price or last trade price, respectively, of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg, or if the foregoing do not apply, the last closing bid price or last trade price, respectively, of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no closing bid price or last trade price, respectively, is reported for such security by Bloomberg, the average of the bid prices, or the ask prices, respectively, of any market makers for such security as reported in the Pink Open Market (f/k/a OTC Pink) published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices). If the Closing Bid Price or the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Bid Price or the Closing Sale Price, as the case may be, of such security on such date shall be the fair market value as mutually determined by the Company and the applicable Holder. If the Company and such Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 19. All such determinations to be appropriately adjusted for any stock dividend, stock split, stock combination, reclassification or other similar transaction relating to the Common Stock occurring during the applicable calculation period.

(m) **“Code”** means the Internal Revenue Code of 1986, as amended.

(n) **“Common Stock”** means (i) the Company’s shares of common stock, par value \$0.001 per share and (ii) any capital stock into which such Common Stock shall be changed or any capital stock resulting from a reorganization, recapitalization or reclassification of such Common Stock.

(o) **“Common Stock Deemed Outstanding”** means, at any given time, the number of shares of Common Stock outstanding at such time, plus the number of shares of Common Stock deemed to be outstanding pursuant to Sections 5(f)(i)(A) and 5(f)(i)(B) hereof regardless of whether the Options or Convertible Securities are actually exercisable at such time, but excluding any shares of Common Stock owned or held by or for the account of the Company or issuable pursuant to the terms of the Certificate of Designations.

(p) **“Conversion Amount”** means, for each Series A Preferred Share, the sum of (A) the Stated Value to be converted, redeemed or otherwise with respect to which this determination is being made, (B) accrued and unpaid Dividends, if any, with respect to such Stated Value and (C) accrued and unpaid Late Charges, if any, with respect to such Stated Value and Dividends, if any.

(q) **"Conversion Price"** means, as of any Conversion Date or other date of determination, \$3.65, as adjusted as provided herein.

(r) **"Convertible Securities"** means any stock or securities (other than Options) directly or indirectly convertible into or exercisable or exchangeable for shares of Common Stock.

(s) **"Designee"** means Starboard Value LP or any of its Affiliates.

(t) **"Eligible Market"** means the Principal Market, The New York Stock Exchange, The Nasdaq Capital Market, The Nasdaq Global Market or the NYSE American.

(u) **"Equity Conditions"** means each of the following conditions: (i) on each day during the Equity Conditions Measuring Period, either (x) one or more Registration Statements filed and required to be filed pursuant to the Registration Rights Agreement shall be effective and available for the resale of all remaining Registrable Securities including the shares of Common Stock issuable upon conversion of the Conversion Amount that is subject to the applicable Mandatory Conversion or the applicable Company Optional Redemption, as the case may be, requiring the satisfaction of the Equity Conditions, in accordance with the terms of the Registration Rights Agreement and there shall not have been any Grace Periods (as defined in the Registration Rights Agreement) or (y) all shares of Common Stock issuable pursuant to the terms of the Certificate of Designations, including the shares of Common Stock issuable upon conversion of the Conversion Amount that is subject to the applicable Mandatory Conversion or the applicable Company Optional Redemption, as the case may be, requiring the satisfaction of the Equity Conditions, shall be eligible for sale without restriction or limitation pursuant to Rule 144 and without the need for registration under any applicable federal or state securities laws; (ii) on each day during the Equity Conditions Measuring Period the Company shall have no knowledge of any fact that would reasonably be expected to cause (x) the Registration Statements required pursuant to the Registration Rights Agreement not to be effective and available for the resale of all remaining Registrable Securities, including the shares of Common Stock issuable upon conversion of the Conversion Amount that is subject to the applicable Mandatory Conversion or the applicable Company Optional Redemption, as the case may be, requiring the satisfaction of the Equity Conditions, in accordance with the terms of the Registration Rights Agreement or (y) any shares of Common Stock issuable pursuant to the terms of the Certificate of Designations, including the shares of Common Stock issuable upon conversion of the Conversion Amount that is subject to the applicable Mandatory Conversion or the applicable Company Optional Redemption, as the case may be, requiring the satisfaction of the Equity Conditions, not to be eligible for sale without restriction or limitation pursuant to Rule 144 and without the requirement to be in compliance with Rule 144(c)(1) (or any successor thereto) promulgated under the Securities Act and any applicable state securities laws; (iii) the shares of Common Stock issuable upon conversion of the Conversion Amount that is subject to the applicable Mandatory Conversion or the applicable Company Optional Redemption, as the case may be, requiring the satisfaction of the Equity Conditions may be issued in full and the rules or regulations of the Principal Market or any other applicable Eligible Market (for the avoidance of doubt, failure of this clause (iii) shall not be deemed an Equity Conditions Failure provided that the Company complies with the applicable provisions of Section 5(d)); (iv) on each day during the Equity Conditions Measuring Period, the Common Stock is designated for quotation on the Principal Market or any other Eligible Market and shall not have been suspended from trading on such exchange or market nor shall delisting or suspension by such exchange or market been commenced or pending with

delisting or suspension reasonably expected to occur within thirty (30) days of each applicable date of determination either (A) in writing by such exchange or market or (B) by falling below the then effective minimum listing maintenance requirements of such exchange or market; (v) the shares of Common Stock issuable upon conversion of the Conversion Amount that is subject to the applicable Mandatory Conversion or the applicable Company Optional Redemption, as the case may be, requiring the satisfaction of the Equity Conditions are duly authorized and listed and eligible for trading without restriction on an Eligible Market; (vi) during the Equity Conditions Measuring Period, the Company shall have delivered shares of Common Stock pursuant to the terms of the Certificate of Designations and to the holders on a timely basis as set forth in Section 5(c) hereof; (vii) if the event requiring the satisfaction of the Equity Conditions is a Mandatory Conversion, the Mandatory Conversion Price Condition is satisfied; and (viii) during the Equity Conditions Measuring Period, Holder shall not be in possession of any material, nonpublic information received from the Company, any Subsidiary or its respective agent or Affiliates.

(v) **"Equity Conditions Failure"** means that on the applicable date of determination through the applicable date of determination, the Equity Conditions have not each been satisfied (or waived in writing by such Holder, provided that the Equity Condition set forth in clause (iii) of such definition shall not be waivable by any Holder).

(w) **"Equity Conditions Measuring Period"** means each day during the period beginning thirty (30) Trading Days immediately prior to the applicable date of determination and ending on and including the applicable date of determination; provided, however, if the event requiring the satisfaction of the Equity Conditions is a Mandatory Conversion, the Equity Conditions Measuring Period shall mean the applicable date of determination.

(x) **"Equity Interests"** means Capital Stock and all warrants, options or other rights to acquire Capital Stock (but excluding any debt security that is convertible into, or exchangeable for, Capital Stock other than the Stockholders Notes).

(y) **"Exchange Act"** means the Securities Exchange Act of 1934, as amended.

(z) **"Excluded Securities"** means any shares of Common Stock issued or issuable: (A) under any Approved Stock Plan; (B) pursuant to the terms of this Certificate of Designations or upon the exercise of the Warrants; provided that the terms of Warrants or the Certificate of Designations, as applicable, are not amended, modified or changed on or after the Subscription Date to increase the number of shares issued or issuable pursuant to such securities (other than in connection with stock splits or combinations) or to decrease the exercise price, exchange price or conversion price of such securities (other than in connection with stock splits or combinations) or to extend the term of such securities; and (C) upon conversion, exercise or exchange of any Options or Convertible Securities which are outstanding on the day immediately preceding the Subscription Date, provided that the terms of such Options or Convertible Securities, as applicable, are not amended, modified or changed on or after the Subscription Date to increase the number of shares issued or issuable pursuant to such securities (other than in connection with stock splits or combinations) or to decrease the exercise price, exchange price or conversion price of such securities (other than in connection with stock splits or combinations) or to extend the term of such securities.

(aa) **"Freely Tradable Shares"** means (x) from and after the six (6) month anniversary of the Issuance Date, shares of Common Stock without any restrictive legend that are eligible for resale by the applicable Holder without restriction or limitation

pursuant to Rule 144 of the Securities Act other than the requirement to be in compliance with Rule 144(c)(1) (or any successor thereto) and any limitation on the amount of such sales pursuant to Rule 144(e) (or any successor thereto) of the Securities Act, and (y) from and after the earlier of the Effectiveness Deadline and the Effective Date (each as defined in the Registration Rights Agreement), shares of Common Stock that are eligible for resale by the applicable Holder without restriction or limitation pursuant to an effective Registration Statement that is available for use.

(ab) **“Fundamental Transaction”** means (i) that the Company shall, directly or indirectly, including through Subsidiaries, Affiliates or otherwise, in one or more related transactions, (a) consolidate or merge with or into (whether or not the Company is the surviving corporation) another Subject Entity, or (b) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of the Company or any of its “significant subsidiaries” (as defined in Rule 1-02 of Regulation S-X) to one or more Subject Entities, or (c) make, or allow one or more Subject Entities to make, or allow the Company to be subject to or have its Common Stock be subject to or party to one or more Subject Entities making, a purchase, tender or exchange offer that is accepted by the holders of more than either (1) 50% of the outstanding shares of Common Stock, (2) 50% of the outstanding shares of Common Stock calculated as if any shares of Common Stock held by all Subject Entities making or party to, or Affiliated with any Subject Entities making or party to, such purchase, tender or exchange offer were not outstanding; or (3) such number of shares of Common Stock such that all Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such purchase, tender or exchange offer, become collectively the beneficial owners (as defined in Rule 13d-3 under the Exchange Act) of more than 50% of the outstanding shares of Common Stock, or (d) consummate a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with one or more Subject Entities whereby such Subject Entities, individually or in the aggregate, acquire, either (1) more than 50% of the outstanding shares of Common Stock, (2) more than 50% of the outstanding shares of Common Stock calculated as if any shares of Common Stock held by all the Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such stock purchase agreement or other business combination were not outstanding; or (3) such number of shares of Common Stock such that the Subject Entities become collectively the beneficial owners (as defined in Rule 13d-3 under the Exchange Act) of more than 50% of the outstanding shares of Common Stock, or (e) reorganize, recapitalize or reclassify its Common Stock, (ii) that the Company shall, directly or indirectly, including through Subsidiaries, Affiliates or otherwise, in one or more related transactions, allow any Subject Entity individually or the Subject Entities in the aggregate to be or become the “beneficial owner” (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, whether through acquisition, purchase, assignment, conveyance, tender, tender offer, exchange, reduction in outstanding shares of Common Stock, merger, consolidation, business combination, reorganization, recapitalization, spin-off, scheme of arrangement, reorganization, recapitalization or reclassification or otherwise in any manner whatsoever, of either (a) more than 50% of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock, (b) more than 50% of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock not held by all such Subject Entities as of the Subscription Date calculated as if any shares of Common Stock held by all such Subject Entities were not outstanding, or (c) a percentage of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock or other equity securities of the Company sufficient to allow such Subject Entities to effect a statutory short form merger or other transaction requiring other stockholders of the Company to surrender their shares of Common Stock without approval of the stockholders of the Company or

(iii) that the Company shall, directly or indirectly, including through Subsidiaries, Affiliates or otherwise, in one or more related transactions, the issuance of or the entering into any other instrument or transaction structured in a manner to circumvent, or that circumvents, the intent of this definition in which case this definition shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this definition to the extent necessary to correct this definition or any portion of this definition which may be defective or inconsistent with the intended treatment of such instrument or transaction.

(ac) **“Governance Agreement”** shall have the meaning ascribed to such term in the Securities Purchase Agreement.

(ad) **“Group”** means a “group” as that term is used in Section 13(d) of the Exchange Act and as defined in Rule 13d-5 thereunder.

(ae) **“Holder Optional Redemption Premium”** means (i) in the case of the Holder Optional Redemption Trigger Events set forth in clauses (i) and (ii) of Section 8, 115%, (ii) in the case of the Holder Optional Redemption Trigger Event set forth in clause (iii) of Section 8, 100% and (ii) in the case of the Holder Optional Redemption Trigger Event set forth in clause (iv) of Section 8, 110%.

(af) **“Liquidation Event”** means the voluntary or involuntary liquidation, dissolution or winding up of the Company or such Subsidiaries the assets of which constitute all or substantially all of the assets of the business of the Company and its Subsidiaries taken as a whole, in a single transaction or series of transactions, or adoption of any plan for the same.

(ag) **“Make-Whole Amount”** means a cash amount per \$100 Conversion Amount of Series A Preferred Shares being redeemed in a Change of Control determined by multiplying the applicable Make-Whole Stock Price (as adjusted for any stock dividend, stock split, stock combination, reclassification or similar transaction relating to the Common Stock occurring after the Subscription Date) by the amount set forth in the table below (with interpolation for Make-Whole Stock Prices between the amounts in the columns below) corresponding to the date of the Change of Control occurring after the date in the first column but prior to the date, if any, on the immediately following row of the first column below:

Change of Control Redemption Date	Make-Whole Stock Price																	
	\$1.00																	\$100.00
	or less	\$1.25	\$1.50	\$1.75	\$2.00	\$2.25	\$2.50	\$2.75	\$3.00	\$3.25	\$3.50	\$3.75	\$4.00	\$4.25	\$4.50	\$10.00	\$50.00	or greater
11/15/2019	16.61	16.40	16.49	16.63	16.92	17.31	17.76	17.93	18.41	22.24	22.18	21.50	19.87	18.38	17.53	5.46	0.95	0.47
11/15/2020	21.98	20.84	20.35	20.24	20.32	20.16	20.44	20.39	20.35	20.83	20.82	20.21	18.65	17.18	16.38	4.84	0.80	0.40
11/15/2021	19.02	18.20	17.93	18.02	18.26	18.23	18.61	18.64	18.68	19.25	19.29	18.76	17.27	15.83	15.09	4.14	0.65	0.32
11/15/2022	15.86	15.35	15.31	15.59	15.98	16.08	16.56	16.69	16.80	17.47	17.56	17.12	15.71	14.29	13.61	3.35	0.49	0.24
11/15/2023	12.42	12.35	12.51	12.81	13.17	13.70	13.95	14.48	14.70	15.41	15.60	15.26	13.72	12.90	11.68	2.56	0.31	0.16
11/15/2024	9.03	9.26	9.63	10.02	10.59	11.09	11.56	11.97	12.55	12.89	13.43	13.17	11.78	10.55	9.85	1.38	0.16	0.08
11/15/2025	5.42	5.81	6.32	6.97	7.61	8.26	8.92	9.53	10.10	10.61	11.03	10.75	9.58	8.55	7.56	0.03	0.01	0.00
11/15/2026	1.99	2.23	2.66	3.25	3.94	4.70	5.47	6.28	7.04	7.80	8.55	8.53	7.48	6.63	5.90	0.00	0.00	0.00
11/15/2027	0.05	0.04	0.03	0.03	0.02	0.03	0.06	0.25	0.79	1.79	3.12	3.82	3.52	3.30	3.12	0.00	0.00	0.00

The exact Make-Whole Stock Price and Change of Control Redemption Date may not be set forth in the table above, in which case, if the Make- Whole Stock Price is between two

such amounts in the table or the Change of Control Redemption Date is between two Change of Control Redemption Dates in the table, the applicable value will be determined by straight-line interpolation between the applicable value set forth for the higher and lower Make-Whole Stock Prices and the earlier and later Change of Control Redemption Dates, as applicable, based on a 365-day year. In no event shall the Make-Whole Amount be greater than or less than the maximum and minimum values set forth in the table above and no Make-Whole Amount shall be paid with respect to a Change of Control occurring on or after November 15, 2027.

(ah) **"Make-Whole Stock Price"** means (i) the cash amount paid per share of Common Stock, if the holders of Common Stock receive only cash in the applicable Change of Control or (ii) in any other situation, the price of the Common Stock at the time of the consummation of the applicable Change of Control (all such determinations to be appropriately adjusted for any stock split, stock dividend, stock combination, reclassification or other similar transaction relating to the Common Stock during such period).

(ai) **"Maturity Date"** shall be November 15, 2027 (the **"Original Maturity Date"**), as may be extended at the option of any Holder with respect to such Holder's Series A Preferred Shares (i) in the event that, and for so long as, a Triggering Event shall have occurred and be continuing on the Maturity Date (as may be extended pursuant to this Section 31(ii)) or any event shall have occurred and be continuing on the Maturity Date (as may be extended pursuant to this Section 31(ii)) that with the passage of time and the failure to cure would result in a Triggering Event and (ii) through the date that is ten (10) Business Days after the consummation of a Change of Control in the event that a Change of Control is publicly announced or a Change of Control Notice is delivered prior to the Maturity Date; provided, however, in the event a Holder elects to extend the Original Maturity Date as provided herein, the Company shall nevertheless have the right to pay the Company Optional Redemption Price at any time after the Original Maturity Date so long as no properly delivered Conversion Notice is outstanding.

(aj) **"Notes"** means: (i) the SPA Notes, (ii) all Senior Secured Notes, if any, issued by the Company in an Exchange and (iii) all Stockholders Notes.

(ak) **"Option Value"** means the value of an Option calculated using the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg determined as of (A) the Trading Day prior to the public announcement of the issuance of the applicable Option if the issuance of such Option is publicly announced or (B) the Trading Day immediately following the issuance of the applicable Option if the issuance of such Option is not publicly announced, for pricing purposes and reflecting (i) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the remaining term of the applicable Option as of the applicable date of determination, (ii) an expected volatility equal to the greater of 100% and the 100 day volatility obtained from the HVT function on Bloomberg as of (A) the Trading Day immediately following the public announcement of the applicable Option if the issuance of such Option is publicly announced or (B) the Trading Day immediately following the issuance of the applicable Option if the issuance of such Option is not publicly announced, (iii) the underlying price per share used in such calculation shall be the highest Weighted Average Price of the Common Stock during the period beginning on the Trading Day prior to the execution of definitive documentation relating to the issuance of the applicable Option and ending on (A) the Trading Day immediately following the public announcement of such issuance, if the issuance of such Option is publicly announced or (B) the Trading Day immediately following the issuance of the applicable Option if the issuance of such Option is not publicly announced, (iv) a zero cost of borrow and (v) a 360 day annualization factor.

(al) **"Options"** means any rights, warrants or options to subscribe for or purchase (i) shares of Common Stock or (ii) Convertible Securities.

(am) **"Parent Entity"** of a Person means an entity that, directly or indirectly, controls the applicable Person, including such entity whose common capital stock or equivalent equity security is quoted or listed on an Eligible Market (or, if so elected by the Required Holders, any other market, exchange or quotation system), or, if there is more than one such Person or such entity, the Person or such entity designated by the Required Holders or in the absence of such designation, such Person or entity with the largest public market capitalization as of the date of consummation of the Fundamental Transaction.

(an) **"Permitted Securities"** means (i) Excluded Securities and (ii) securities issued by the Company in a primary offering pursuant to a registration statement that is declared effective under the Securities Act.

(ao) **"Person"** means an individual, a limited liability company, a partnership (limited or general), a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

(ap) **"Preferential Dividend Rate"** means, initially, 3.00% per annum (the **Initial Preferential Dividend Rate**), and from and after the consummation of an Approved Investment, the Initial Preferential Dividend Rate shall be increased to 8.00% per annum.

(aq) **"Principal Market"** means The Nasdaq Global Select Market.

(ar) **"Redemption Dates"** means, collectively, each Triggering Event Redemption Date, each Change of Control Redemption Date, the Company Optional Redemption Date, each Holder Optional Redemption Date and the Maturity Date, each of the foregoing, individually, a **"Redemption Date"**.

(as) **"Redemption Notices"** means, collectively, each Notice of Redemption at Option of Holder, each Change of Control Redemption Notice, the Company Optional Redemption Notice, each Holder Optional Redemption Notice and any other redemption notices set forth herein, each of the foregoing, individually, a **"Redemption Notice"**.

(at) **"Redemption Prices"** means, collectively, each Triggering Event Redemption Price, each Change of Control Redemption Price, the Company Optional Redemption Price, each Holder Optional Redemption Price, the Maturity Date Redemption Price and any other redemption price set forth herein (including, in each case, any interest and damages thereon), each of the foregoing, individually, a **"Redemption Price"**.

(au) **"Registrable Securities"** shall have the meaning ascribed to such term in the Registration Rights Agreement.

(av) **"Registration Rights Agreement"** means that certain registration rights agreement dated as of the Subscription Date by and among the Company and the Buyers, as may be amended, amended and restated, supplemented or otherwise modified from time to time.

(aw) **"Registration Statement"** shall have the meaning ascribed to such term in the Registration Rights Agreement.

(ax) **"Required Holders"** means the Holders representing at least a majority of the aggregate Series A Preferred Shares then outstanding and shall include the Designee so long as the Designee and/or any of its Affiliates is a Holder.

(ay) **"SEC"** means the United States Securities and Exchange Commission.

(az) **"Securities Act"** means the Securities Act of 1933, as amended.

(ba) **"Securities Purchase Agreement"** means that certain securities purchase agreement, dated as of the Subscription Date, by and among the Company and the Buyers pursuant to which the Company issued the Series A Preferred Shares, the Notes and the Warrants, as may be amended, amended and restated, supplemented or otherwise modified from time to time.

(bb) **"Series B Warrant Shares"** shall have the meaning ascribed to such term in the Securities Purchase Agreement.

(bc) **"Series B Warrants"** shall have the meaning ascribed to such term in the Securities Purchase Agreement.

(bd) **"SPA Notes"** means all Senior Secured Notes, if any, issued by the Company pursuant to the Securities Purchase Agreement on an Additional Closing Date.

(be) **"Standard Settlement Period"** means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Eligible Market with respect to the Common Stock as in effect on the date of delivery of the applicable Conversion Notice.

(bf) **"Stated Value"** means, per Series A Preferred Share, \$100, subject to adjustment to preserve such value for stock splits, stock dividends, recapitalizations, reorganizations, reclassifications, combinations, reverse stock splits or other similar events relating to the Series A Preferred Shares after the Subscription Date.

(bg) **"Stockholder Approval"** shall have the meaning ascribed to such term in the Securities Purchase Agreement.

(bh) **"Stockholder Meeting Deadline"** shall have the meaning ascribed to such term in the Securities Purchase Agreement.

(bi) **"Stockholders Notes"** shall have the meaning ascribed to such term in the Securities Purchase Agreement.

(bj) **"Subject Entity"** means any Person, Persons or Group or any Affiliate or associate of any such Person, Persons or Group.

(bk) **"Subscription Date"** means November 18, 2019.

(bl) **"Subsidiary"** shall have the meaning ascribed to such term in the Securities Purchase Agreement.

(bm) **"Successor Entity"** means one or more Person or Persons (or, if so elected by the Required Holders, the Company or Parent Entity) formed by, resulting from or surviving any Fundamental Transaction or one or more Person or Persons (or, if so

elected by the Required Holders, the Company or the Parent Entity) with which such Fundamental Transaction shall have been entered into.

(bn) **"Trading Day"** means any day on which the Common Stock is traded on the Principal Market, or, if the Principal Market is not the principal trading market for the Common Stock on such day, then on the principal securities exchange or securities market on which the Common Stock is then traded; provided that "Trading Day" shall not include any day on which the Common Stock is scheduled to trade on such exchange or market for less than 4.5 hours or any day that the Common Stock is suspended from trading during the final hour of trading on such exchange or market (or if such exchange or market does not designate in advance the closing time of trading on such exchange or market, then during the hour ending at 4:00:00 p.m., New York time).

(bo) **"Transaction Documents"** shall have the meaning ascribed to such term in the Securities Purchase Agreement.

(bp) **"Transfer Agent"** means Computershare Trust Company, N.A. or such other agent or agents of the Company as may be designated by the Board as the transfer agent for the Series A Preferred Shares and/or the Common Stock, as applicable.

(bq) **"Treasury Regulations"** means the final and temporary (but not proposed) tax regulations promulgated under the Code, as such regulations may be amended from time to time.

(br) **"Warrants"** has the meaning ascribed to such term in the Securities Purchase Agreement, and shall include all warrants issued in exchange therefor or replacement thereof.

(bs) **"Weighted Average Price"** means, for any security as of any date, the dollar volume-weighted average price for such security on the Principal Market during the period beginning at 9:30:01 a.m., New York time (or such other time as the Principal Market publicly announces is the official open of trading), and ending at 4:00:00 p.m., New York time (or such other time as the Principal Market publicly announces is the official close of trading), as reported by Bloomberg through its "Volume at Price" function or, if the foregoing does not apply, the dollar volume-weighted average price of such security in the over-the-counter market on the electronic bulletin board for such security during the period beginning at 9:30:01 a.m., New York time (or such other time as such market publicly announces is the official open of trading), and ending at 4:00:00 p.m., New York time (or such other time as such market publicly announces is the official close of trading), as reported by Bloomberg, or, if no dollar volume-weighted average price is reported for such security by Bloomberg for such hours, the average of the highest closing bid price and the lowest closing ask price of any of the market makers for such security as reported in the Pink Open Market (f/k/a OTC Pink) published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices). If the Weighted Average Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Weighted Average Price of such security on such date shall be the fair market value as mutually determined by the Company and the applicable Holder. If the Company and such Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 19. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination, reclassification or other similar transaction relating to the Common Stock occurring during the applicable calculation period.

* * * * *

IN WITNESS WHEREOF, the Company has caused this Second Amended and Restated Certificate of Designations to be signed by Jennifer Graff, its Corporate Secretary, as of 29th day of June.

ACACIA RESEARCH CORPORATION

By: /s/ Jennifer Graff
Name: Jennifer Graff
Title: Corporate Secretary

EXHIBIT I

ACACIA RESEARCH CORPORATION

CONVERSION NOTICE

Reference is made to the Second Amended and Restated Certificate of Designations, Preferences and Rights of Series A Convertible Preferred Stock of Acacia Research Corporation (the "**Certificate of Designations**"). In accordance with and pursuant to the Certificate of Designations, the undersigned hereby elects to convert the number of shares of Series A Convertible Preferred Stock, par value \$0.001 per share (the "**Series A Preferred Shares**"), of Acacia Research Corporation, a Delaware corporation (the "**Company**"), indicated below into shares of Common Stock, par value \$0.001 per share (the "**Common Stock**"), of the Company, as of the date specified below.

Date of Conversion: ____

Number of Series A Preferred Shares to be converted: ____

Stock certificate no(s). of Series A Preferred Shares to be converted: ____

Tax ID Number (If applicable): ____

Please confirm the following information: ____

Conversion Price: ____

Number of shares of Common Stock to be issued: ____

Please issue the Common Stock into which the Series A Preferred Shares are being converted to the Holder, or for its benefit, as follows:

☐ Check here if requesting delivery as a certificate to the following name and to the following address:

Issue to: ____

Address: ____

Telephone Number: ____

Facsimile Number: ____

☐ Check here if requesting delivery by Deposit/Withdrawal at Custodian as follows:

DTC Participant: ____

DTC Number: ____

Account Number: ____

Authorization:____

By: ____

Title: ____

Dated: ____

Account Number (if electronic book entry transfer): ____

Transaction Code Number (if electronic book entry transfer): ____

ACKNOWLEDGMENT

The Company hereby acknowledges this Conversion Notice and hereby directs Computershare Trust Company, N.A. to issue the above indicated number of shares of Common Stock in accordance with the Transfer Agent Instructions dated November 18, 2019 from the Company and acknowledged and agreed to by Computershare Trust Company, N.A.

ACACIA RESEARCH CORPORATION

By: ____
Name: ____
Title: ____

ACACIA RESEARCH CORPORATION
RESTRICTED STOCK UNIT AWARD AGREEMENT

Name of Grantee:	[] (the “Grantee”)
Total Number of Restricted Stock Units Granted:	[]
Grant Date:	[]

Acacia Research Corporation (the “**Company**”) has on the Grant Date specified above (the “**Grant Date**”) granted to the Grantee, pursuant to the Company’s 2016 Stock Incentive Plan (the “**Plan**”), an award (the “**Award**”) to receive that number of restricted stock units (the “**Restricted Stock Units**”) indicated above. Each Restricted Stock Unit represents the right to receive one share of the Company’s Common Stock (the “**Common Stock**”), subject to certain restrictions and on the terms and conditions contained in this Restricted Stock Unit Award Agreement (this “**Agreement**”) and the Plan. Any terms not defined herein shall have the meaning set forth in the Plan. The Restricted Stock Units are being granted to Grantee in order to provide an incentive for Grantee to provide services to the Company and to devote Grantee’s best efforts towards its growth and success, and Grantee shall not be required to pay any purchase price or other consideration upon conversion of any Restricted Stock Units into shares of the Common Stock.

1. Definitions. As used herein, the following definitions shall apply:

(a) “**Cause**” has the meaning set forth in any written employment agreement between the Company (or any of its Subsidiaries) and Grantee, and if Grantee is not party to such agreement or such agreement does not define “Cause,” if Grantee is a participant in the Company’s Amended and Restated Executive Severance Policy, “Cause” has the meaning set forth therein, and if Grantee is not a participant in the Company’s Amended and Restated Executive Severance Policy, “Cause” has the meaning set forth in the Plan.

(b) “**Change in Control**” has the meaning provided on Exhibit A. For the avoidance of doubt, “Change in Control” and “Hostile Take-Over,” each as defined in the Plan, shall not apply to this Agreement.

(c) “**Change in Control Period**” means the period beginning on the date of a Change in Control and ending on the twelve (12)-month anniversary thereof.

(d) “**Continuous Service**” means the absence of any interruption or termination of Service as an Employee of the Company from the Grant Date through the relevant date; provided, however, that Service shall not be considered interrupted in the case of (i) sick leave; (ii) military leave; (iii) a leave of absence for any other purpose that is approved and duly authorized in writing by the Company if the period of such leave does not exceed 90 days, unless reemployment upon the expiration of such leave is guaranteed by contract or statute, or unless provided otherwise pursuant to Company policy adopted from time to time; or (iv) transfers between locations of the Company or between the Company and a parent or subsidiary thereof, or any successor to such entities. However, notwithstanding anything in the foregoing to the contrary, the Committee shall have complete and absolute discretion to determine whether an employee is in the Continuous Service of the Company at any time.

(e) “**Good Reason**” has the meaning set forth in any written employment agreement between the Company (or any of its Subsidiaries) and Grantee, and if Grantee is not party to such agreement or such agreement does not define “Good Reason,” “Good Reason” has the meaning set forth in the Plan.

2. Rights of Grantee with Respect to the Restricted Stock Units

(a) No Stockholder Rights. Grantee shall have no rights as a stockholder of the Company until shares of Common Stock are actually issued to and held of record by Grantee pursuant to Section 2(b) below. The rights of Grantee with respect to the Restricted Stock Units shall remain forfeitable at all times prior to the date on which such rights become vested, in accordance with Section 3 or Section 4 below. Notwithstanding the foregoing, any dividends payable with respect to shares of Common Stock during the period of time that the Restricted Stock Units are outstanding shall accumulate, subject to the same terms and conditions applicable to the Restricted Stock Units, and shall be paid to the Grantee at such time as the Grantee receives shares of Common Stock with respect to the vested Restricted Stock Units pursuant to Section 2(b). For the avoidance of doubt, the right to receive payment of such dividends shall be forfeited to the extent that the Restricted Stock Units do not vest, are forfeited or are otherwise cancelled pursuant to this Agreement.

(b) Conversion of Restricted Stock Units; Issuance of Common Stock No shares of Common Stock shall be issued to Grantee prior to the date on which the Restricted Stock Units vest, in accordance with Section 3 or Section 4 below. As soon as practicable following the vesting of any Restricted Stock Units pursuant to Section 3 or Section 4 below, but in any event not later than thirty (30) days following the date on which the Restricted Stock Units vest, for each vested Restricted Stock Unit, subject to the tax withholding provisions of Section 7 below, the Company will deliver one unrestricted, fully transferable share of Common Stock registered in Grantee's name in payment of each such vested whole Restricted Stock Unit subject to the terms and provisions of this Agreement and the Plan. The delivery of the shares of Common Stock shall be in complete satisfaction of such vested Restricted Stock Units.

3. Vesting. Subject to the Grantee's Continuous Service through the applicable vesting date and except as set forth in Section 4 below, one-third (1/3) of the Restricted Stock Units granted hereunder, rounded down to the nearest whole share (with any fractional shares being applied to future Vesting Dates until a whole share is reached), shall vest upon each of the first, second and third anniversaries of the Grant Date (each such date a portion of the Restricted Stock Units become vested, a “**Vesting Date**”). Except as provided in this Agreement or as otherwise provided by the Plan Administrator, if Grantee ceases to provide Continuous Service prior to any Vesting Date, Grantee's rights to any Restricted Stock Units that have not vested prior to or in connection with such termination of Continuous Service shall be immediately and irrevocably forfeited.

4. Change in Control.

(a) Notwithstanding anything to the contrary in this Agreement or the Plan, in the event of a Change in Control, if the Restricted Stock Units are not Assumed (as defined in Section 4(b) below), any unvested Restricted Stock Units shall become vested immediately prior to the Change in Control.

(b) In the event of a Change in Control in which the Restricted Stock Units are continued or assumed, or substituted or replaced with an award of the acquiror or surviving entity in such Change in Control, in each case, with respect to the same form and amount of cash, shares or other consideration per share of Common Stock as is received by the shareholders of the Company (other than any Person who beneficially owns 50% or more of the Outstanding Company Common Stock or the Outstanding Company Voting Securities immediately prior to the Change in Control) and with equivalent terms and value as the Restricted Stock Units (“**Assumed**”), the Restricted Stock Units shall remain subject to the terms and conditions of this Agreement, provided that, notwithstanding Section 3 above, if during the Change in Control Period Grantee ceases to provide Continuous Service as a result of (i) the termination of Grantee's employment by the Company or any successor entity without Cause or (ii) the Grantee's termination of Grantee's employment with Good Reason, any unvested Restricted Stock Units

shall become vested immediately upon such termination. The provisions of the Plan with respect to the accelerated vesting of Restricted Stock Units upon a Participant's voluntary termination after the twelfth (12th) month, but no later than the thirteenth (13th) month, following a Change in Control or Hostile Take-over (Article Four, Section 2 of the Plan) do not apply to the Restricted Stock Units and any unvested Restricted Stock Units will be forfeited on a voluntary termination.

5. Restriction on Transfer. The Restricted Stock Units and any rights under this Award may not be sold, assigned, transferred, pledged, hypothecated or otherwise disposed of or otherwise transferred or encumbered by Grantee, and any such purported sale, assignment, transfer, pledge, hypothecation or other disposition, transfer or encumbrance shall be void and unenforceable against the Company.

6. Adjustments to Restricted Stock Units In the event that the outstanding shares of Common Stock of the Company are hereafter increased or decreased or changed into or exchanged for a different number or kind of shares or other securities of the Company by reason of a recapitalization, stock split, combination of shares, reclassification, stock dividend, or other change in the capital structure of the Company, then Grantee shall be entitled to new or additional or different shares of stock or securities, in order to preserve, as nearly as practical, but not to increase, the benefits of Grantee under the Award. Such new, additional or different shares shall be deemed "Common Stock" for purposes of this Award and subject to all of the terms and conditions hereof. Notwithstanding anything in this Award to the contrary (a) any such adjustments made to Restricted Stock Units that are considered "deferred compensation" within the meaning of Section 409A of the Code shall be made in compliance with the requirements of Section 409A of the Code; (b) any such adjustments made to Restricted Stock Units that are not considered "deferred compensation" subject to Section 409A of the Code shall be made in such a manner as to ensure that after such adjustment the Restricted Stock Units either (i) continue not to be subject to Section 409A of the Code or (ii) comply with the requirements of Section 409A of the Code; and (c) in any event, the Company shall not have the authority to make any adjustments to the extent the existence of such authority would cause Restricted Stock Units that are not intended to be subject to Section 409A of the Code at the time of grant to be subject thereto.

7. Income Tax Matters.

(a) In order to comply with all applicable federal or state income tax laws or regulations, the Company may take such action as it deems appropriate to ensure that all applicable federal or state payroll, withholding, income or other taxes, which are the sole and absolute responsibility of Grantee, are withheld or collected from Grantee.

(b) The Company shall reasonably determine the amount of any federal, state, local or other income, employment, or other taxes which the Company may reasonably be obligated to withhold with respect to the grant, vesting, or other event with respect to the Restricted Stock Units. At the option of the Plan Administrator, the Company may withhold from compensation payable to Grantee to satisfy the minimum amount of any such withholding obligations that arise with respect to the vesting of such Restricted Stock Units. Alternatively, the Plan Administrator may require the Grantee to make cash payments to the Company for the minimum amount of any such withholding obligations.

8. Compliance with Laws. The Award and the offer, issuance and delivery of securities under this Agreement are subject to compliance with all applicable federal and state laws, rules and regulations (including but not limited to state and federal securities laws) and to such approvals by any listing, regulatory or governmental authority as may, in the opinion of counsel for the Company, be necessary or advisable in connection therewith. For the avoidance of doubt, the Company shall not be obligated to issue or deliver any shares of Common Stock if counsel to the Company determines that such issuance or delivery would violate any such applicable law, rule or regulation. Grantee will, if requested by the Company, provide such assurances and representations to the Company as the Company may deem necessary or desirable to assure compliance with all applicable legal requirements. The Company will cause such action to be taken, and such filings to be made, so that the grant

hereunder shall comply with the rules of the principal stock exchange on which shares of the Company's Common Stock are then listed for trading.

9. 409A Compliance. To the extent applicable, it is intended that this Agreement be exempt from or comply with the provisions of Section 409A ("**Section 409A**") of the Code. This Agreement will be administered and interpreted in a manner consistent with this intent, and any provision that would cause this Agreement to fail to satisfy Section 409A will have no force and effect until amended to comply therewith (which amendment may be retroactive to the extent permitted by Section 409A).

10. Recoupment. The Restricted Stock Units and any payments made pursuant to this Agreement shall be subject to the provisions of any clawback or recoupment policy that may be adopted by the Company from time to time.

11. Entire Agreement. This Agreement and the Plan constitute the entire agreement between the parties with respect to the subject matter hereof and supersede all prior or contemporaneous written or oral agreements and understandings of the parties, either express or implied.

12. Unfunded Awards. The Restricted Stock Units granted under this Agreement are unfunded and unsecured obligations and rights to provide or receive compensation in accordance with the provisions hereof, and to the extent that Participant acquires a right to receive compensation from the Company or a Subsidiary pursuant to this Agreement, such right shall be no greater than the right of any unsecured general creditor of the Company or such Subsidiary. No action contemplated by Section 2(b) above nor any action taken pursuant to or in accordance with such Section 2(b) shall be construed to create a trust of any kind.

13. Severability. Should any provision or portion of this Agreement be held to be unenforceable or invalid for any reason, the remaining provisions and portions of this Agreement shall be unaffected by such holding.

14. Notices. All notices, requests, demands and other communications required or permitted under this Agreement shall be in writing and shall be deemed to have been duly given and effective (i) when delivered by hand, (ii) when otherwise delivered against receipt therefor, or (iii) three (3) business days after being mailed if sent by registered or certified mail, postage prepaid, return receipt requested. Any notice shall be addressed to the parties as follows or at such other address as a party may designate by notice given to the other party in the manner set forth herein:

(a) if to the Company:

Acacia Research Corporation
767 Third Avenue
6th Floor, Suite 601
New York, NY 10017
Attention: Chief Administrative Officer
with a copy to General Counsel

(b) if to Grantee, at the address shown on the signature page of this Agreement.

15. Applicable Law. This Agreement shall be construed in accordance with the laws of the State of Delaware without reference to choice of law principles, as to all matters, including, but not limited to, matters of validity, construction, effect or performance.

16. Number and Gender. Where the context requires, the singular shall include the plural, the plural shall include the singular, and any gender shall include all other genders.

17. Section Headings. The section headings of, and titles of paragraphs and subparagraphs contained in, this Agreement are for the purpose of convenience only, and they neither form a part of this Agreement nor are they to be used in the construction or interpretation thereof.

18. Modifications. This Agreement may not be amended, modified or changed (in whole or in part), except by a written agreement expressly referring to this Agreement, which agreement is executed by both of the parties hereto. Notwithstanding the foregoing, amendments made pursuant to Section 9 hereof may be effectuated solely by the Company.

19. Waiver. Neither the failure nor any delay on the part of a party to exercise any right, remedy, power or privilege under this Agreement shall operate as a waiver thereof, nor shall any single or partial exercise of any right, remedy, power or privilege preclude any other or further exercise of the same or of any right, remedy, power or privilege, nor shall any waiver of any right, remedy, power or privilege with respect to any occurrence be construed as a waiver of such right, remedy, power or privilege with respect to any other occurrence. No waiver shall be effective unless it is in writing and is signed by the party asserted to have granted such waiver.

20. Counterparts. This Agreement may be executed in one or more counterparts, all of which taken together shall constitute one agreement and any party hereto may execute this Agreement by signing any such counterpart. This Agreement shall be binding upon Grantee and the Company at such time as the Agreement, in counterpart or otherwise, is executed by Grantee and the Company.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Restricted Stock Unit Award Agreement as of the date first above written.

THE COMPANY:

ACACIA RESEARCH CORPORATION

By: _____

Name: [_____]

Title: [_____]

GRANTEE:

Name
Address:

EXHIBIT A

A "Change in Control" means the occurrence of any of the following:

(i) The acquisition by any individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) (a "Person") of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of 50% or more of either (A) the then-outstanding shares of common stock of the Company (the "Outstanding Company Common Stock") or (B) the combined voting power of the then-outstanding voting securities of the Company entitled to vote generally in the election of directors (the "Outstanding Company Voting Securities"); provided, however, that, for purposes of clause (i) of the definition, the following acquisitions shall not constitute a Change in Control: (A) any acquisition directly from the Company, (B) any acquisition by the Company, (C) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by the Company or any of its Affiliates or (D) any acquisition by any corporation pursuant to a transaction that complies with clauses (A), (B) and (C) of clause (iii) of this definition;

(ii) Consummation of a reorganization, merger, statutory share exchange or consolidation or similar corporate transaction involving the Company or any of its affiliates, a sale or other disposition of all or substantially all of the assets of the Company, or the acquisition of assets or stock of another entity by the Company or any of its subsidiaries (each, a "Business Combination"), in each case unless, following such Business Combination, (A) all or substantially all of the individuals and entities that were the beneficial owners of the Outstanding Company Common Stock and the Outstanding Company Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of the then-outstanding shares of common stock and the combined voting power of the then-outstanding voting securities entitled to vote generally in the election of directors, as the case may be, of the corporation resulting from such Business Combination (including, without limitation, a corporation that, as a result of such transaction, owns the Company or all or substantially all of the Company's assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership immediately prior to such Business Combination of the Outstanding Company Common Stock and the Outstanding Company Voting Securities, as the case may be, (B) no Person (excluding any corporation resulting from such Business Combination or any employee benefit plan (or related trust) of the Company or such corporation resulting from such Business Combination) beneficially owns, directly or indirectly, 50% or more of, respectively, the then-outstanding shares of common stock of the corporation resulting from such Business Combination or the combined voting power of the then-outstanding voting securities of such corporation, except to the extent that such ownership existed prior to the Business Combination, and (C) at least a majority of the members of the board of directors of the corporation resulting from such Business Combination were members of the Incumbent Board at the time of the execution of the initial agreement or of the action of the Board providing for such Business Combination; or

(iii) Approval by the shareholders of the Company of a complete liquidation or dissolution of the Company.

ACACIA RESEARCH CORPORATION

PERFORMANCE-BASED RESTRICTED STOCK UNIT AWARD AGREEMENT

Name of Grantee:	[] (the “Grantee”)
Target Number of PSUs:	[]
Performance Period:	January 1, 2023 through December 31, 2025
Performance Criteria:	See Exhibit A attached hereto
Grant Date:	[]

Acacia Research Corporation (the “**Company**”) has on the Grant Date specified above (the “**Grant Date**”) granted to the Grantee, pursuant to the Company’s 2016 Stock Incentive Plan (the “**Plan**”), an award (the “**Award**”) to receive performance-based restricted stock units (the “**PSUs**”), subject to certain restrictions and on the terms and conditions contained in this Performance-based Restricted Stock Unit Award Agreement (this “**Agreement**”) and the Plan. The Target Number of PSUs set forth above represents the number of shares of the Company’s Common Stock (the “**Common Stock**”) that may vest if the Performance Criteria are achieved at the Target Level. However, the actual number of PSUs that may vest pursuant to this Agreement will range from 0% to 200% of the Target Number of PSUs based upon the extent to which the Plan Administrator determines the Performance Criteria are achieved during the Performance Period in accordance with **Exhibit A**. Any terms not defined herein shall have the meaning set forth in the Plan. The PSUs are being granted to Grantee in order to provide an incentive for Grantee to provide services to the Company and to devote Grantee’s best efforts towards its growth and success, and Grantee shall not be required to pay any purchase price or other consideration upon conversion of any PSUs into shares of the Common Stock.

1. **Definitions.** As used herein, the following definitions shall apply:

(a) “**Cause**” has the meaning set forth in any written employment agreement between the Company (or any of its Subsidiaries) and Grantee, and if Grantee is not party to such agreement or such agreement does not define “Cause,” if Grantee is a participant in the Company’s Amended and Restated Executive Severance Policy, “Cause” has the meaning set forth therein, and if Grantee is not a participant in the Company’s Amended and Restated Executive Severance Policy, “Cause” has the meaning set forth in the Plan.

(b) “**Change in Control**” has the meaning provided on **Exhibit B**. For the avoidance of doubt, “Change in Control” and “Hostile Take-Over,” each as defined in the Plan, shall not apply to this Agreement.

(c) “**Change in Control Period**” means the period beginning on the date of a Change in Control and ending on the twelve (12)-month anniversary thereof.

(d) “**Continuous Service**” means the absence of any interruption or termination of Service as an Employee of the Company from the Grant Date through the relevant date; provided, however, that Service shall not be considered interrupted in the case of (i) sick leave; (ii) military leave; (iii) a leave of absence for any other purpose that is approved and duly authorized in writing by the Company if the period of such leave does not exceed 90 days, unless reemployment upon the expiration of such leave is guaranteed by contract or statute, or unless provided otherwise pursuant to Company

policy adopted from time to time; or (iv) transfers between locations of the Company or between the Company and a parent or subsidiary thereof, or any successor to such entities. However, notwithstanding anything in the foregoing to the contrary, the Committee shall have complete and absolute discretion to determine whether an employee is in the Continuous Service of the Company at any time.

(e) **“Good Reason”** has the meaning set forth in any written employment agreement between the Company (or any of its Subsidiaries) and Grantee, and if Grantee is not party to such agreement or such agreement does not define “Good Reason,” “Good Reason” has the meaning set forth in the Plan.

2. Rights of Grantee with Respect to the PSUs

(a) No Stockholder Rights. Grantee shall have no rights as a stockholder of the Company until shares of Common Stock are actually issued to and held of record by Grantee pursuant to Section 2(b) below. The rights of Grantee with respect to the PSUs shall remain forfeitable at all times prior to the date on which such rights become vested, in accordance with Section 3, Section 4 or Section 5 below. Notwithstanding the foregoing, any dividends payable with respect to shares of Common Stock during the period of time that the PSUs are outstanding shall accumulate, subject to the same terms and conditions applicable to the PSUs, and shall be paid to the Grantee at such time as the Grantee receives shares of Common Stock with respect to the vested PSUs pursuant to Section 2(b). For the avoidance of doubt, the right to receive payment of such dividends shall be forfeited to the extent that the PSUs do not vest, are forfeited or are otherwise cancelled pursuant to this Agreement.

(b) Conversion of PSUs: Issuance of Common Stock. No shares of Common Stock shall be issued to Grantee prior to the date on which the PSUs vest, in accordance with Section 3, Section 4 or Section 5 below. As soon as practicable following the vesting of any PSUs pursuant to Section 3, Section 4 or Section 5 below, but in any event not later than thirty (30) days following the date on which the PSUs vest, for each vested PSU, subject to the tax withholding provisions of Section 8 below, the Company will deliver one unrestricted, fully transferable share of Common Stock registered in Grantee's name in payment of each such vested whole PSU subject to the terms and provisions of this Agreement and the Plan. The delivery of the shares of Common Stock shall be in complete satisfaction of such vested PSUs.

3. Certification of Performance Criteria. As soon as practicable, and in any event not later than 90 days, following the close of the Performance Period (as such Performance Period may be deemed complete as provided in Section 5 below), the Committee shall determine, in writing, the extent to which the Performance Criteria have been met (the day of the Committee's determination, the **“Certification Date”**) and the number of shares of Common Stock determined to have been earned that are eligible to vest in accordance with the terms hereof (such number of shares, the **“Earned PSUs”**). Subject to Grantee's Continuous Service through the third anniversary of the Grant Date, the Earned PSUs shall vest. Except as provided in this Agreement or as otherwise provided by the Plan Administrator, if Grantee ceases to provide Continuous Service prior to the third anniversary of the Grant Date, Grantee's rights to any PSUs, whether or not Earned PSUs, that have not vested prior to or are not eligible to vest in connection with such termination of Continuous Service shall be immediately and irrevocably forfeited.

4. Effect of Termination of Continuous Service Not During a Change in Control Period

(a) Grantee's Termination Prior to First Anniversary of Grant Date. For the avoidance of doubt, if Grantee ceases to provide Continuous Service prior to the first anniversary of the Grant Date, the PSUs shall be immediately and irrevocably forfeited.

(b) Termination Following First Anniversary of Grant Date. Notwithstanding Section 3 above, if Grantee ceases to provide Continuous Service following the first anniversary of the Grant Date and prior to the third anniversary of the Grant Date, and not during the Change in Control Period, as a result of (i) Grantee's death, (ii) the termination of Grantee's employment by the Company due to Grantee's Permanent Disability, (iii) the termination of Grantee's employment by the Company without

Cause or (iv) the termination of Grantee's employment by Grantee with Good Reason, subject to Grantee's (or Grantee's legal representative's, heir's, legatee's or distributee's, as applicable) timely execution of a general release of claims no later than sixty (60) days following such termination of employment in a form satisfactory to the Company and, if applicable, Grantee's (or Grantee's legal representative's, heir's, legatee's or distributee's, as applicable) failure to revoke such execution or signature in accordance with the terms of such release during the sixty (60)-day period, a prorated portion (based on the number of full years Grantee was employed from the Grant Date until the date of Grantee's termination of employment, over 3) of the Target Number of PSUs shall remain outstanding and eligible to vest in accordance with Section 3 above.

5. Change in Control.

(a) Notwithstanding anything to the contrary in this Agreement or the Plan, in the event of a Change in Control prior to the end of the Performance Period, any PSUs that are outstanding and unvested immediately prior to the Change in Control (which, for the avoidance of doubt, will include any PSUs that, pursuant to Section 4(b) above, remain outstanding and subject to vest in accordance with Section 3 above) shall be scored, and become Earned PSUs immediately prior to the date of the Change in Control, based on the actual level of achievement of the Performance Criteria during the period beginning on the first day of the Performance Period and ending on the last day of the month ending prior to the Change in Control, if determinable, and, if not determinable, at the Target Level of Performance, as determined by the Committee (in effect immediately prior to the consummation of the Change in Control) in its sole discretion. For the avoidance of doubt, in the event of a Change in Control following the Certification Date but prior to the third anniversary of the Grant Date, the number of Earned PSUs as certified shall not be re-scored or adjusted in connection with the Change in Control.

(i) If the Earned PSUs are not Assumed (as defined in Section 5(a)(ii) below), the Earned PSUs shall become vested immediately prior to the Change in Control.

(ii) In the event of a Change in Control in which the Earned PSUs are continued or assumed, or substituted or replaced with an award of the acquiror or surviving entity in such Change in Control, in each case, with respect to the same form and amount of cash, shares or other consideration per share of Common Stock as is received by the shareholders of the Company (other than any Person who beneficially owns 50% or more of the Outstanding Company Common Stock or the Outstanding Company Voting Securities immediately prior to the Change in Control) and with equivalent terms and value as the Earned PSUs ("**Assumed**"), the Earned PSUs shall remain subject to the terms and conditions of this Agreement, provided that, notwithstanding Section 3 or Section 4 above, (i) if during the Change in Control Period, but following the first anniversary of the Grant Date, Grantee ceases to provide Continuous Service as a result of Grantee's death or the termination of Grantee's employment by the Company due to Grantee's Permanent Disability, a prorated portion (based on the number of full years Grantee was employed from the Grant Date until the date of Grantee's termination of employment, over 3) of the Earned PSUs shall become vested immediately upon such termination; or (ii) if during the Change in Control period Grantee ceases to provide Continuous Service as a result of the termination of Grantee's employment by the Company or any successor entity without Cause or the Grantee's termination of Grantee's employment with Good Reason, the Earned PSUs shall become vested immediately upon such termination. The provisions of the Plan with respect to the accelerated vesting of Restricted Stock Units upon a Participant's voluntary termination after the twelfth (12th) month, but no later than the thirteenth (13th) month, following a Change in Control or Hostile Take-over (Article Four, Section 2 of the Plan) do not apply to the PSUs and any unvested Earned PSUs will be forfeited on a voluntary termination.

6. Restriction on Transfer. The PSUs and any rights under this Award may not be sold, assigned, transferred, pledged, hypothecated or otherwise disposed of or otherwise transferred or encumbered by Grantee, and any such purported sale, assignment, transfer, pledge, hypothecation or other disposition, transfer or encumbrance shall be void and unenforceable against the Company.

7. Adjustments to PSUs. In the event that the outstanding shares of Common Stock of the Company are hereafter increased or decreased or changed into or exchanged for a different number or kind of shares or other securities of the Company by reason of a recapitalization, stock split,

combination of shares, reclassification, stock dividend, or other change in the capital structure of the Company, then Grantee shall be entitled to new or additional or different shares of stock or securities, in order to preserve, as nearly as practical, but not to increase, the benefits of Grantee under the Award. Such new, additional or different shares shall be deemed "Common Stock" for purposes of this Award and subject to all of the terms and conditions hereof. Notwithstanding anything in this Award to the contrary (a) any such adjustments made to PSUs that are considered "deferred compensation" within the meaning of Section 409A of the Code shall be made in compliance with the requirements of Section 409A of the Code; (b) any such adjustments made to PSUs that are not considered "deferred compensation" subject to Section 409A of the Code shall be made in such a manner as to ensure that after such adjustment the PSUs either (i) continue not to be subject to Section 409A of the Code or (ii) comply with the requirements of Section 409A of the Code; and (c) in any event, the Company shall not have the authority to make any adjustments to the extent the existence of such authority would cause PSUs that are not intended to be subject to Section 409A of the Code at the time of grant to be subject thereto.

8. Income Tax Matters.

(a) In order to comply with all applicable federal or state income tax laws or regulations, the Company may take such action as it deems appropriate to ensure that all applicable federal or state payroll, withholding, income or other taxes, which are the sole and absolute responsibility of Grantee, are withheld or collected from Grantee.

(b) The Company shall reasonably determine the amount of any federal, state, local or other income, employment, or other taxes which the Company may reasonably be obligated to withhold with respect to the grant, vesting, or other event with respect to the PSUs. At the option of the Plan Administrator, the Company may withhold from compensation payable to Grantee to satisfy the minimum amount of any such withholding obligations that arise with respect to the vesting of such PSUs. Alternatively, the Plan Administrator may require the Grantee to make cash payments to the Company for the minimum amount of any such withholding obligations.

9. Compliance with Laws. The Award and the offer, issuance and delivery of securities under this Agreement are subject to compliance with all applicable federal and state laws, rules and regulations (including but not limited to state and federal securities laws) and to such approvals by any listing, regulatory or governmental authority as may, in the opinion of counsel for the Company, be necessary or advisable in connection therewith. For the avoidance of doubt, the Company shall not be obligated to issue or deliver any shares of Common Stock if counsel to the Company determines that such issuance or delivery would violate any such applicable law, rule or regulation. Grantee will, if requested by the Company, provide such assurances and representations to the Company as the Company may deem necessary or desirable to assure compliance with all applicable legal requirements. The Company will cause such action to be taken, and such filings to be made, so that the grant hereunder shall comply with the rules of the principal stock exchange on which shares of the Company's Common Stock are then listed for trading.

10. 409A Compliance. To the extent applicable, it is intended that this Agreement be exempt from or comply with the provisions of Section 409A ("**Section 409A**") of the Code. This Agreement will be administered and interpreted in a manner consistent with this intent, and any provision that would cause this Agreement to fail to satisfy Section 409A will have no force and effect until amended to comply therewith (which amendment may be retroactive to the extent permitted by Section 409A).

11. Recoupment. The PSUs and any payments made pursuant to this Agreement shall be subject to the provisions of any clawback or recoupment policy that may be adopted by the Company from time to time.

12. Entire Agreement. This Agreement and the Plan constitute the entire agreement between the parties with respect to the subject matter hereof and supersede all prior or contemporaneous written or oral agreements and understandings of the parties, either express or implied.

13. Unfunded Awards. The PSUs granted under this Agreement are unfunded and unsecured obligations and rights to provide or receive compensation in accordance with the provisions hereof, and to the extent that Participant acquires a right to receive compensation from the Company or a Subsidiary pursuant to this Agreement, such right shall be no greater than the right of any unsecured general creditor of the Company or such Subsidiary. No action contemplated by Section 2(b) above nor any action taken pursuant to or in accordance with such Section 2(b) shall be construed to create a trust of any kind.

14. Severability. Should any provision or portion of this Agreement be held to be unenforceable or invalid for any reason, the remaining provisions and portions of this Agreement shall be unaffected by such holding.

15. Notices. All notices, requests, demands and other communications required or permitted under this Agreement shall be in writing and shall be deemed to have been duly given and effective (i) when delivered by hand, (ii) when otherwise delivered against receipt therefor, or (iii) three (3) business days after being mailed if sent by registered or certified mail, postage prepaid, return receipt requested. Any notice shall be addressed to the parties as follows or at such other address as a party may designate by notice given to the other party in the manner set forth herein:

(a) if to the Company:

Acacia Research Corporation
767 Third Avenue
6th Floor, Suite 601
New York, NY 10017
Attention: Chief Administrative Officer
with a copy to General counsel

(b) if to Grantee, at the address shown on the signature page of this Agreement.

16. Applicable Law. This Agreement shall be construed in accordance with the laws of the State of Delaware without reference to choice of law principles, as to all matters, including, but not limited to, matters of validity, construction, effect or performance.

17. Number and Gender. Where the context requires, the singular shall include the plural, the plural shall include the singular, and any gender shall include all other genders.

18. Section Headings. The section headings of, and titles of paragraphs and subparagraphs contained in, this Agreement are for the purpose of convenience only, and they neither form a part of this Agreement nor are they to be used in the construction or interpretation thereof.

19. Modifications. This Agreement may not be amended, modified or changed (in whole or in part), except by a written agreement expressly referring to this Agreement, which agreement is executed by both of the parties hereto. Notwithstanding the foregoing, amendments made pursuant to Section 10 hereof may be effectuated solely by the Company.

20. Waiver. Neither the failure nor any delay on the part of a party to exercise any right, remedy, power or privilege under this Agreement shall operate as a waiver thereof, nor shall any single or partial exercise of any right, remedy, power or privilege preclude any other or further exercise of the same or of any right, remedy, power or privilege, nor shall any waiver of any right, remedy, power or privilege with respect to any occurrence be construed as a waiver of such right, remedy, power or privilege with respect to any other occurrence. No waiver shall be effective unless it is in writing and is signed by the party asserted to have granted such waiver.

21. Counterparts. This Agreement may be executed in one or more counterparts, all of which taken together shall constitute one agreement and any party hereto may execute this Agreement

by signing any such counterpart. This Agreement shall be binding upon Grantee and the Company at such time as the Agreement, in counterpart or otherwise, is executed by Grantee and the Company.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Restricted Stock Unit Award Agreement as of the date first above written.

THE COMPANY:

ACACIA RESEARCH CORPORATION

By: _____

Name: [_____]

Title: [_____]

GRANTEE:

Name
Address:

EXHIBIT A
Performance Criteria

EXHIBIT B

A "Change in Control" means the occurrence of any of the following:

(i) The acquisition by any individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) (a "Person") of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of 50% or more of either (A) the then-outstanding shares of common stock of the Company (the "Outstanding Company Common Stock") or (B) the combined voting power of the then-outstanding voting securities of the Company entitled to vote generally in the election of directors (the "Outstanding Company Voting Securities"); provided, however, that, for purposes of clause (i) of

the definition, the following acquisitions shall not constitute a Change in Control: (A) any acquisition directly from the Company, (B) any acquisition by the Company, (C) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by the Company or any of its Affiliates or (D) any acquisition by any corporation pursuant to a transaction that complies with clauses (A), (B) and (C) of clause (iii) of this definition;

(ii) Consummation of a reorganization, merger, statutory share exchange or consolidation or similar corporate transaction involving the Company or any of its affiliates, a sale or other disposition of all or substantially all of the assets of the Company, or the acquisition of assets or stock of another entity by the Company or any of its subsidiaries (each, a "Business Combination"), in each case unless, following such Business Combination, (A) all or substantially all of the individuals and entities that were the beneficial owners of the Outstanding Company Common Stock and the Outstanding Company Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of the then-outstanding shares of common stock and the combined voting power of the then-outstanding voting securities entitled to vote generally in the election of directors, as the case may be, of the corporation resulting from such Business Combination (including, without limitation, a corporation that, as a result of such transaction, owns the Company or all or substantially all of the Company's assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership immediately prior to such Business Combination of the Outstanding Company Common Stock and the Outstanding Company Voting Securities, as the case may be, (B) no Person (excluding any corporation resulting from such Business Combination or any employee benefit plan (or related trust) of the Company or such corporation resulting from such Business Combination) beneficially owns, directly or indirectly, 50% or more of, respectively, the then-outstanding shares of common stock of the corporation resulting from such Business Combination or the combined voting power of the then-outstanding voting securities of such corporation, except to the extent that such ownership existed prior to the Business Combination, and (C) at least a majority of the members of the board of directors of the corporation resulting from such Business Combination were members of the Incumbent Board at the time of the execution of the initial agreement or of the action of the Board providing for such Business Combination; or

(iii) Approval by the shareholders of the Company of a complete liquidation or dissolution of the Company.

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

I, Martin D. McNulty Jr., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Acacia Research 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a). Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b). Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c). Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d). Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a). All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b). Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 3, 2023

/s/ Martin D. McNulty Jr.

Martin D. McNulty Jr.

Interim Chief Executive Officer

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

I, Kirsten Hoover, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Acacia Research 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a). Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b). Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c). Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d). Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a). All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b). Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 3, 2023

/s/ Kirsten Hoover

Kirsten Hoover

Interim Chief Financial Officer

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER AND 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 of Acacia Research Corporation (the "Company") on Form 10-Q for the quarterly period ended June 30, 2023, as filed with the Securities and Exchange Commission on August 3, 2023 (the "Report"), I, Martin D. McNulty Jr., Interim Chief Executive Officer of the Company, hereby certify, pursuant to Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a) or 78o(d)); 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 3, 2023

By: /s/ Martin D. McNulty Jr.

Martin D. McNulty Jr.

Interim Chief Executive Officer

This certification accompanies the Report pursuant to Rule 13a-14(b) or Rule 15d-14(b) under the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section. This certification will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent that the Company specifically incorporates it by reference.

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER AND 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 of Acacia Research Corporation (the "Company") on Form 10-Q for the quarterly period ended June 30, 2023, as filed with the Securities and Exchange Commission on August 3, 2023 (the "Report"), I, Kirsten Hoover, Interim Chief Financial Officer of the Company, hereby certify, pursuant to Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a) or 78o(d)); 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 3, 2023

By: /s/ Kirsten Hoover

Kirsten Hoover

Interim Chief Financial Officer

This certification accompanies the Report pursuant to Rule 13a-14(b) or Rule 15d-14(b) under the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section. This certification will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent that the Company specifically incorporates it by reference.