UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2023

or

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

For the transition period from _________ to _____________

Commission file number: 001-38273

ACM Research, Inc.
(Exact Name of Registrant as Specified in Its Charter)

Delaware	**94-3290283**
(State or Other Jurisdiction of Incorporation or Organization)	*(I.R.S. Employer Identification No.)*
42307 Osgood Road, Suite I **Fremont, California**	**94539**
(Address of Principal Executive Offices)	*(Zip Code)*

Registrant's telephone number, including area code: **(510) 445-3700**

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

Title of Each Class	Trading Symbol	Name of Each Exchange on which Registered
Class A Common Stock, $0.0001 par value	**ACMR**	**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 o

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

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

Large accelerated filer	☑	Accelerated filer	o
Non-accelerated filer	o	Smaller reporting company	o
		Emerging growth company	o

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

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

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date.

Class	Number of Shares Outstanding
Class A Common Stock, $0.0001 par value	55,000,705 shares outstanding as of August 4, 2023
Class B Common Stock, $0.0001 par value	5,021,811 shares outstanding as of August 4, 2023

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ACM Research, Inc., or ACM Research, is a Delaware corporation founded in California in 1998 to supply capital equipment developed for the global semiconductor industry. Since 2005, ACM Research has conducted its business operations principally through its subsidiary ACM Research (Shanghai), Inc., or ACM Shanghai, a limited liability corporation formed by ACM Research in the People's Republic of China, or the PRC, in 2005. Unless the context requires otherwise, references in this report to "our company," "our," "us," "we" and similar terms refer to ACM Research, Inc. and its subsidiaries, including ACM Shanghai, collectively.

We conduct a substantial majority of our product development, manufacturing, support and services in the PRC through ACM Shanghai. We are not a PRC operating company, and we do not conduct our operations in the PRC through the use of a variable interest entity or any other structure designed for the purpose of avoiding PRC legal restrictions on direct foreign investments in PRC-based companies. For a description of certain matters relating to our operations in the PRC, including our corporate structure, the movement of cash throughout our organization, certain audit and regulatory matters, and risks associated therewith, please see "Item 2—Management's Discussion and Analysis of Financial Condition and Results of Operations" in this report, the disclosure at the forefront of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, and the Risk Factors included therein, as updated by the disclosure included in "Part II. Item 1A—Risk Factors" in this report.

For purposes of this report, certain amounts in Renminbi, or RMB, have been translated into U.S. dollars solely for the convenience of the reader. The translations have been made based on the conversion rates published by the State Administration of Foreign Exchange of the People's Republic of China.

SAPS, TEBO, ULTRA C and ULTRA FURNACE are trademarks of ACM Research. For convenience, these trademarks appear in this report without ™ symbols, but that practice does not mean that ACM Research will not assert, to the fullest extent under applicable law, ACM Research's rights to the trademarks. This report also contains other companies' trademarks, registered marks and trade names, which are the property of those companies.

FORWARD-LOOKING STATEMENTS AND STATISTICAL DATA

This report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, included in this report regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans and objectives of management are forward-looking statements. In some cases, you can identify forward-looking statements by terms such as “may,” “might,” “will,” “objective,” “intend,” “should,” “could,” “can,” “would,” “expect,” “believe,” “anticipate,” “project,” “target,” “design,” “estimate,” “predict,” “potential,” “plan” or the negative of these terms, and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on our management’s belief and assumptions and on information currently available to our management. Although we believe that the expectations reflected in these forward-looking statements are reasonable, these statements relate to future events or our future operational or financial performance, and involve known and unknown risks, uncertainties and other factors, including uncertainties surrounding the COVID-19 pandemic (including effects of related PRC restrictions) and other factors described or incorporated by reference in “Item 1A. Risk Factors” of Part II of this report, that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements.

The information included under the heading “Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Overview,” of Part I of this report contains statistical data and estimates, including forecasts, that are based on information provided by Gartner, Inc., or Gartner, in “Forecast: Semiconductor Wafer Fab Equipment, Worldwide, 4Q22 Update” (December 2022), or the Gartner Report. The Gartner Report represents research opinions or viewpoints that are published, as part of a syndicated subscription service, by Gartner and are not representations of fact. The Gartner Report speaks as of its original publication date (and not as of the date of this report), and the opinions expressed in the Gartner Report are subject to change without notice. While we are not aware of any misstatements regarding any of the data presented from the Gartner Report, estimates, and in particular forecasts, involve numerous assumptions and are subject to risks and uncertainties, as well as change based on various factors, that could cause results to differ materially from those expressed in the data presented below.

Any forward-looking statement made by us in this report speaks only as of the date on which it is made. Except as required by law, we assume no obligation to update these statements publicly or to update the reasons actual results could differ materially from those anticipated in these statements, even if new information becomes available in the future.

You should read this report, and the documents that we reference in this report and have filed as exhibits to this report, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

ACM RESEARCH, INC.
Condensed Consolidated Balance Sheets
(In thousands, except per share data)
(Unaudited)

	June 30, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ 257,420	$ 247,951
Restricted cash	582	500
Short-term time deposits (note 2)	6,000	70,492
Trading securities (note 15)	6,375	20,209
Accounts receivable (note 4)	200,745	182,936
Other receivables	34,491	29,617
Inventories (note 5)	471,094	393,172
Advances to related party (note 16)	1,155	3,322
Prepaid expenses	18,970	15,607
Total current assets	996,832	963,806
Property, plant and equipment, net (note 6)	159,013	82,875
Land use right, net (note 7)	8,290	8,692
Operating lease right-of-use assets, net (note 11)	7,809	2,489
Intangible assets, net	2,107	1,255
Long-term time deposits (note 2)	112,104	101,956
Deferred tax assets (note 19)	11,249	6,703
Long-term investments (note 14)	16,122	17,459
Other long-term assets (note 8)	3,388	50,265
Total assets	$ 1,316,914	$ 1,235,500
Liabilities and Equity		
Current liabilities:		
Accounts payable	$ 106,861	$ 101,735
Other payables and accrued expenses (note 10)	59,997	52,201
Advances from customers	195,485	153,773
Current portion of operating lease liability (note 11)	3,042	1,382
Deferred revenue	5,050	4,174
Short-term borrowings (note 9)	53,976	56,004
Current portion of long-term borrowings (note 12)	3,239	2,322
Income taxes payable (note 19)	10,324	3,469
FIN-48 payable (note 19)	6,446	6,686
Related party accounts payable (note 16)	11,879	14,468
Total current liabilities	456,299	396,214
Long-term borrowings (note 12)	15,899	18,687
Long-term operating lease liability (note 11)	4,767	1,107
Other long-term liabilities (note 13)	6,566	7,321
Total liabilities	483,531	423,329
Commitments and contingencies (note 20)		
Equity:		
Stockholders' equity:		
Class A Common stock (note 17)	5	5
Class B Common stock (note 17)	1	1
Additional paid-in capital	612,699	604,089
Retained earnings	124,284	94,426
Statutory surplus reserve (note 22)	16,881	16,881
Accumulated other comprehensive loss	(61,916)	(40,546)
Total ACM Research, Inc. stockholders' equity	691,954	674,856
Non-controlling interests	141,429	137,315
Total equity	833,383	812,171
Total liabilities and equity	$ 1,316,914	$ 1,235,500

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

ACM RESEARCH, INC.
Condensed Consolidated Statements of Operations and Comprehensive Income (Loss)
(In thousands, except share and per share data)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30, 2023	
	2023	2022	2023	2022
Revenue (note 3)	$ 144,577	$ 104,395	$ 218,833	$ 146,581
Cost of revenue	75,938	60,238	110,208	82,738
Gross profit	68,639	44,157	108,625	63,843
Operating expenses:				
Sales and marketing	11,439	7,664	20,776	14,361
Research and development	20,064	11,367	34,093	28,713
General and administrative	6,706	5,091	14,464	10,040
Total operating expenses	38,209	24,122	69,333	53,114
Income from operations	30,430	20,035	39,292	10,729
Interest income	2,346	2,144	4,131	3,949
Interest expense	(649)	(306)	(1,344)	(567)
Realized gain from sale of trading securities	3,919	-	7,913	-
Unrealized loss on trading securities	(2,455)	(423)	(3,109)	(4,281)
Other income, net	3,724	2,505	2,306	2,742
Equity income in net income of affiliates	3,920	472	3,888	401
Income before income taxes	41,235	24,427	53,077	12,973
Income tax expense (note 19)	(7,638)	(7,679)	(10,517)	(3,668)
Net income	33,597	16,748	42,560	9,305
Less: Net income attributable to non-controlling interests	6,772	4,512	8,590	2,855
Net income attributable to ACM Research, Inc.	$ 26,825	$ 12,236	$ 33,970	$ 6,450
Less: Dilutive effect arising from stock-based awards by ACM Shanghai	(303)	(230)	(395)	(147)
Net income available to common stockholders, diluted	$ 26,522	$ 12,006	$ 33,575	$ 6,303
Comprehensive income (loss):				
Net income	33,597	16,748	42,560	9,305
Foreign currency translation adjustment, net of tax	(35,269)	(40,372)	(25,846)	(37,918)
Comprehensive income (loss)	(1,672)	(23,624)	16,714	(28,613)
Less: Comprehensive income (loss) attributable to non-controlling interests	652	(2,248)	4,114	(3,321)
Comprehensive income (loss) attributable to ACM Research, Inc.	$ (2,324)	$ (21,376)	$ 12,600	$ (25,292)
Net income attributable to ACM Research, Inc. per share of common stock (note 2):				
Basic	$ 0.45	$ 0.21	$ 0.57	$ 0.11
Diluted	$ 0.41	$ 0.18	$ 0.52	$ 0.10
Weighted average shares of common stock outstanding used in computing per share amounts (note 2):				
Basic	59,898,149	59,177,643	59,817,903	59,003,484
Diluted	64,929,638	65,478,677	64,968,900	65,772,973

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

ACM RESEARCH, INC.
Condensed Consolidated Statements of Changes in Equity
For the Six Months Ended June 30, 2023 and 2022
(In thousands, except share and per share data)
(Unaudited)

	Common Stock Class A		Common Stock Class B							
	Shares	Amount	Shares	Amount	Additional Paid-in Capital	Retained earnings	Statutory Surplus Reserve	Accumulated Other Comprehensive Income	Non-controlling interests	Total Equity
Balance at December 31, 2021	**53,608,929**	**$ 5**	**5,087,814**	**$ 1**	**$ 595,045**	**$ 63,732**	**$ 8,312**	**$ 9,109**	**$ 135,461**	**$ 811,665**
Net income	-	-	-	-	-	6,450	-	-	2,855	9,305
Foreign currency translation adjustment	-	-	-	-	-	-	-	(31,742)	(6,176)	(37,918)
Exercise of stock options	531,874	-	-	-	750	-	-	-	-	750
Stock-based compensation	-	-	-	-	3,343	-	-	-	-	3,343
Conversion of Class B common stock to Class A common stock	1,002	-	(1,002)	-	-	-	-	-	-	-
Balance at June 30, 2022	**54,141,805**	**$ 5**	**5,086,812**	**$ 1**	**$ 599,138**	**$ 70,182**	**$ 8,312**	**$ (22,633)**	**$ 132,140**	**$ 787,145**

	Common Stock Class A		Common Stock Class B							
	Shares	Amount	Shares	Amount	Additional Paid-in Capital	Retained earnings	Statutory Surplus Reserve	Accumulated Other Comprehensive Income (Loss)	Non-controlling interests	Total Equity
Balance at December 31, 2022	**54,655,286**	**$ 5**	**5,021,811**	**$ 1**	**$ 604,089**	**$ 96,034**	**$ 16,881**	**$ (40,546)**	**$ 137,315**	**$ 813,779**
Cumulative effect of change in accounting principle under ASU 2016-13						(1,769)				(1,769)
Net income	-	-	-	-	-	33,970	-	-	8,590	42,560
Foreign currency translation adjustment	-	-	-	-	-	-	-	(21,370)	(4,476)	(25,846)
Exercise of stock options	296,204	-	-	-	4,525	-	-	-	-	4,525
Shanghai dividend accrual						(3,951)				(3,951)
Stock-based compensation	-	-	-	-	4,085	-	-	-	-	4,085
Balance at June 30, 2023	**54,951,490**	**$ 5**	**5,021,811**	**$ 1**	**$ 612,699**	**$ 124,284**	**$ 16,881**	**$ (61,916)**	**$ 141,429**	**$ 833,383**

ACM RESEARCH, INC.
Condensed Consolidated Statements of Changes in Equity
For the Three Months Ended June 30, 2023 and 2022
(In thousands, except share and per share data)
(Unaudited)

	Common Stock Class A		Common Stock Class B		Additional Paid-in Capital	Retained earnings	Statutory Surplus Reserve	Accumulated Other Comprehensive Income	Non-controlling interests	Total Equity
	Shares	Amount	Shares	Amount						
Balance at April 1, 2022	**54,035,280**	**$ 5**	**5,086,812**	**$ 1**	**$ 597,143**	**$ 57,946**	**$ 8,312**	**$ 10,979**	**$ 134,388**	**$ 808,774**
Net income	-	-	-	-	-	12,236	-	-	4,512	16,748
Foreign currency translation adjustment	-	-	-	-	-	-	-	(33,612)	(6,760)	(40,372)
Exercise of stock options	106,525	-	-	-	26	-	-	-	-	26
Stock-based compensation	-	-	-	-	1,969	-	-	-	-	1,969
Balance at June 30, 2022	**54,141,805**	**$ 5**	**5,086,812**	**$ 1**	**$ 599,138**	**$ 70,182**	**$ 8,312**	**$ (22,633)**	**$ 132,140**	**$ 787,145**

	Common Stock Class A		Common Stock Class B		Additional Paid-in Capital	Retained earnings	Statutory Surplus Reserve	Accumulated Other Comprehensive Income (Loss)	Non-controlling interests	Total Equity
	Shares	Amount	Shares	Amount						
Balance at April 1, 2023	**54,818,355**	**$ 5**	**5,021,811**	**$ 1**	**$ 606,398**	**$ 101,410**	**$ 16,881**	**$ (32,768)**	**$ 140,778**	**$ 832,705**
Net income	-	-	-	-	-	26,825	-	-	6,772	33,597
Foreign currency translation adjustment	-	-	-	-	-	-	-	(29,148)	(6,121)	(35,269)
Exercise of stock options	133,135	-	-	-	4,284	-	-	-	-	4,284
Shanghai dividend accrual						(3,951)				(3,951)
Stock-based compensation	-	-	-	-	2,017	-	-	-	-	2,017
Balance at June 30, 2023	**54,951,490**	**$ 5**	**5,021,811**	**$ 1 $—**	**$ 612,699 $—**	**$ 124,284 $—**	**$ 16,881 $—**	**$ (61,916) $—**	**$ 141,429 $—**	**$ 833,383**

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

ACM RESEARCH, INC.
Condensed Consolidated Statements of Cash Flows
(In thousands)
(Unaudited)

	Six Months Ended June 30,	
	2023	**2022**
Cash flows from operating activities:		
Net income	$ 42,560	$ 9,305
Adjustments to reconcile net income from operations to net cash used in operating activities		
Depreciation and amortization	3,955	2,555
Loss on disposals of property, plant and equipment	(1)	—
Realized gain on trading securities	(7,913)	—
Equity income in net income of affiliates	(3,888)	(401)
Unrealized loss on trading securities	3,109	4,281
Bad debt expense	496	-
Deferred income taxes	(4,711)	1,642
Stock-based compensation	4,085	3,343
Net changes in operating assets and liabilities:		
Accounts receivable	(28,630)	(55,919)
Other receivables	(8,252)	(676)
Inventories	(96,739)	(80,862)
Advances to related party (note 16)	2,167	(690)
Prepaid expenses	(4,749)	(5,996)
Other long-term assets	—	910
Related party accounts payable (note 16)	(2,589)	1,163
Accounts payable	9,963	5,950
Advances from customers	46,611	44,069
Deferred revenue	4,056	2,950
Income taxes payable	8,629	1,791
FIN-48 payable	(240)	(111)
Other payables and accrued expenses	10,004	6,862
Other long-term liabilities	(2,163)	(1,463)
Net cash flow used in operating activities	(24,240)	(61,297)
Cash flows from investing activities:		
Purchase of property and equipment	(21,633)	(5,256)
Purchase of intangible assets	(1,285)	(453)
Purchase of long-term investment (Note 14)	(1,453)	—
(Increase) decrease of time deposits	48,208	(144,530)
Proceeds from selling trading securities	17,709	—
Dividends from unconsolidated affiliates	5,095	—
Net cash (used in) provided by investing activities	46,641	(150,239)
Cash flows from financing activities:		
Repayments of short-term borrowings	—	(4,921)
Repayments of long-term borrowings	(1,111)	(800)
Proceeds from exercise of stock options	4,525	750
Net cash (used in) provided by financing activities	3,414	(4,971)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	$ (16,264)	$ (22,216)
Net increase (decrease) in cash, cash equivalents and restricted cash	$ 9,551	$ (238,723)
Cash, cash equivalents and restricted cash at beginning of period	248,451	563,067
Cash, cash equivalents and restricted cash at end of period	$ 258,002	$ 324,344
Supplemental disclosure of cash flow information:		
Interest paid, net of capitalized interest	$ 1,344	$ 567
Cash paid for income taxes	$ 7,243	$ 119
Reconciliation of cash, cash equivalents and restricted cash in condensed consolidated statements of cash flows:		
Cash and cash equivalents	257,420	324,344
Restricted cash	582	—
Cash, cash equivalents and restricted cash	$ 258,002	$ 324,344
Non-cash financing activities:		
Conversion of Class B common stock to Class A common stock	$ —	$ 1,002
Cashless exercise of stock options	$ 79	$ 68

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

ACM RESEARCH, INC.
Notes to the Condensed Consolidated Financial Statements
(In thousands, except share, percentage and per share data)

NOTE 1 – DESCRIPTION OF BUSINESS

ACM Research, Inc. (“ACM”) and its subsidiaries (collectively with ACM, the “Company”) develop, manufacture and sell single-wafer wet-cleaning equipment used to improve the manufacturing process and yield for advanced integrated chips. The Company markets and sells its single-wafer wet-cleaning equipment, under the brand name "Ultra C," which are based on the Company’s proprietary Space Alternated Phase Shift (“SAPS”) and Timely Energized Bubble Oscillation (“TEBO”) technologies. These tools are designed to remove random defects from a wafer surface efficiently, without damaging the wafer or its features, even at increasingly advanced process nodes.

ACM was incorporated in California in 1998, and it initially focused on developing tools for manufacturing process steps involving the integration of ultra low-K materials and copper. The Company’s early efforts focused on stress-free copper-polishing technology, and it sold tools based on that technology in the early 2000s.

In 2006, the Company established its operational center in Shanghai in the People’s Republic of China (the “PRC”), where it operates through ACM’s subsidiary, ACM Research (Shanghai), Inc. (“ACM Shanghai”). ACM Shanghai was formed to help establish and build relationships with integrated circuit manufacturers in the PRC, and the Company initially financed its Shanghai operations in part through sales of non-controlling equity interests in ACM Shanghai.

In 2007, the Company began to focus its development efforts on single-wafer wet-cleaning solutions for the front-end chip fabrication process. The Company introduced its SAPS megasonic technology, which can be applied in wet wafer cleaning at numerous steps during the chip fabrication process, in 2009. It introduced its TEBO technology, which can be applied at numerous steps during the fabrication of small node two-dimensional conventional and three-dimensional patterned wafers, in March 2016. The Company has designed its equipment models for SAPS and TEBO solutions using a modular configuration that enables it to create a wet-cleaning tool meeting the specific requirements of a customer, while using pre-existing designs for chamber, electrical, chemical delivery and other modules. In August 2018, the Company introduced its Ultra-C Tahoe wafer cleaning tool, which can deliver high cleaning performance with significantly less sulfuric acid than typically consumed by conventional high-temperature single-wafer cleaning tools. Based on its electro-chemical plating (“ECP”) technology, the Company introduced in March 2019 its Ultra ECP AP, or “Advanced Packaging,” tool for bumping, or applying copper, tin and nickel to semiconductor wafers at the die-level, and its Ultra ECP MAP, or “Multi-Anode Partial Plating,” tool to deliver advanced electrochemical copper plating for copper interconnect applications in front-end wafer fabrication processes. In 2022, the Company added two major new product categories with the introduction of the Ultra Pmax™ PECVD and Ultra Track tools. The Company also offers a range of custom-made equipment, including cleaners, coaters and developers, to back-end wafer assembly and packaging factories, principally in the PRC.

In 2011, ACM Shanghai formed a wholly-owned subsidiary in the PRC, ACM Research (Wuxi), Inc. (“ACM Wuxi”), to manage sales and service operations.

In November 2016, ACM re-domesticated from California to Delaware pursuant to a merger in which ACM Research, Inc., a California corporation, was merged into a newly formed, wholly-owned Delaware subsidiary, also named ACM Research, Inc.

In June 2017, ACM formed a wholly-owned subsidiary in Hong Kong, CleanChip Technologies Limited (“CleanChip”), to act on the Company’s behalf in Asian markets outside the PRC by, for example, serving as a trading partner between ACM Shanghai and its customers, procuring raw materials and components, performing sales and marketing activities, and making strategic investments.

In August 2017, ACM purchased 18.77% of ACM Shanghai’s equity interests held by Shanghai Science and Technology Venture Capital Co., Ltd. On November 8, 2017, ACM purchased the remaining 18.36% of ACM Shanghai’s equity interests held by third parties, Shanghai Pudong High-Tech Investment Co., Ltd. and Shanghai Zhangjiang Science & Technology Venture Capital Co., Ltd. At December 31, 2017, ACM owned all of the outstanding equity interests of ACM Shanghai, and indirectly through ACM Shanghai, owned all of the outstanding equity interests of ACM Wuxi.

In December 2017, ACM formed a wholly-owned subsidiary in the Republic of Korea, ACM Research Korea CO., LTD. ("ACM Korea"), to serve customers based in Republic of Korea and perform sales and marketing and research and development ("R&D") activities for new products and solutions.

In March 2019, ACM Shanghai formed a wholly-owned subsidiary in the PRC, ACM Research (Lingang), Inc. ("ACM Lingang") to manage activities related to the addition of future long-term production capacity. ACM Lingang is the English name referred to by its Chinese language name Shengwei Research (Shanghai), Inc. ("ACM Shengwei") in prior filings. ACM Shengwei and ACM Lingang refer to the same entity.

In June 2019, CleanChip formed a wholly-owned subsidiary in California, ACM Research (CA), Inc. ("ACM California"), to provide procurement services on behalf of ACM Shanghai. In June 2019, ACM Korea was reorganized as a wholly-owned subsidiary of CleanChip.

In June 2019, ACM announced plans to complete a listing (the "STAR Listing") of shares of ACM Shanghai on the Shanghai Stock Exchange's Sci-Tech innovAtion boaRd, known as the STAR Market, and a concurrent initial public offering (the "STAR IPO") of ACM Shanghai shares in the PRC. ACM Shanghai is currently ACM's primary operating subsidiary, and at the time of announcement, was wholly-owned by ACM. To meet a STAR Listing requirement that it have multiple independent stockholders in the PRC, ACM Shanghai completed private placements of its shares in June and November 2019, following which, as of September 30, 2020, the private placement investors held a total of 8.3% of the outstanding shares of ACM Shanghai and ACM Research held the remaining 91.7%. As part of the STAR Listing process, in June 2020 the ownership interests held by the private investors were reclassified from redeemable non-controlling interests to non-controlling interests as the redemption feature was terminated.

In preparation for the STAR IPO, ACM completed a reorganization in December 2019 that included the sale of all of the shares of CleanChip by ACM to ACM Shanghai for $3,500. The reorganization and sale had no impact on ACM's consolidated financial statements.

In August 2021, ACM formed a wholly-owned subsidiary in Singapore, ACM Research (Singapore) PTE, Ltd. ("ACM Singapore"), to perform sales, marketing, and other business development activities.

In November 2021, ACM Shanghai completed its STAR Listing and STAR IPO and its shares began trading on the STAR Market. In the STAR IPO, ACM Shanghai issued 43,355,753 shares, representing 10% of the total 433,557,100 shares outstanding after the issuance. The shares were issued at a public offering price of RMB 85.00 per share, and the net proceeds of the STAR IPO, after issuance costs, totaled $545,512. Upon completion of the STAR IPO, ACM owned 82.5% of the outstanding ACM Shanghai shares. However, in May 2023, ACM's ownership declined to 82.1% due to the exercise of 2,150,309 stock options related to ACM Shanghai shares (note 18).

In February 2022, ACM Shanghai formed a wholly-owned subsidiary in China, ACM Research (Beijing), Inc. ("ACM Beijing") to perform sales, marketing and other business development activities.

In March 2022, ACM formed a wholly-owned subsidiary in South Korea, Hanguk ACM CO., LTD, to perform business development and other related activities.

In March 2022, the Board of Directors of ACM declared a 3-for-1 stock split of Class A and Class B common stock effected in the form of a stock dividend (the "Stock Split"). Each stockholder of record at the close of business on March 16, 2022, received a dividend of two additional shares of Class A common stock for each then-held share of Class A common stock and two additional shares of Class B common stock for each then-held share of Class B common stock, which were distributed after the close of trading on March 23, 2022. Unless otherwise indicated, all share numbers, per share amount, share prices, exercise prices and conversion rates set forth in these notes and the accompanying condensed consolidated financial statements reflect the Stock Split.

In June 2023, ACM Shanghai formed a wholly-owned subsidiary in China, Yusheng Micro Semiconductor (Shanghai), Co., Ltd, ("Yusheng Micro") to perform business development activities.

(In thousands, except share, percentage and per share data)

In June 2023, Yusheng Micro together with Wooil Flucon (note 14) and a private investor established ACM-Wooil Microelectronics (Shanghai) Co., Ltd, ("ACM-Wooil"), a joint venture based in China to develop and produce key components for the semiconductor equipment industry.

The Company has direct or indirect interests in the following subsidiaries:

		Effective interest held as at	
Name of subsidiaries	**Place and date of incorporation**	**June 30, 2023**	**December 31, 2022**
ACM Research (Shanghai), Inc.	PRC, May 2005	82.1 %	82.5 %
ACM Research (Wuxi), Inc.	PRC, July 2011	82.1 %	82.5 %
CleanChip Technologies Limited	Hong Kong, June 2017	82.1 %	82.5 %
ACM Research Korea CO., LTD.	Korea, December 2017	82.1 %	82.5 %
ACM Research (Lingang), Inc. (1)	PRC, March 2019	82.1 %	82.5 %
ACM Research (CA), Inc.	USA, April 2019	82.1 %	82.5 %
ACM Research (Cayman), Inc.	Cayman Islands, April 2019	100.0 %	100.0 %
ACM Research (Singapore) PTE. Ltd.	Singapore, August 2021	100.0 %	100.0 %
ACM Research (Beijing), Inc.	PRC, February 2022	82.1 %	82.5 %
Hanguk ACM CO., LTD.	Korea, March 2022	100.0 %	100.0 %
Yusheng Micro Semiconductor (Shanghai) Co., Ltd	PRC, June 2023	82.1 %	— %
ACM-Wooil Microelectronics (Shanghai) Co., Ltd	PRC, June 2023	59.4 %	— %

(1) ACM Research (Lingang) Inc., or ACM Lingang, is the English name referred to by its Chinese language name Shengwei Research (Shanghai), Inc. in prior filings. ACM Research (Lingang), Inc. and Shengwei Research (Shanghai), Inc. refer to the same entity.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation and Principles of Consolidation

The Company’s condensed consolidated financial statements include the accounts of ACM and its subsidiaries. ACM’s subsidiaries are those entities in which ACM, directly or indirectly, controls a majority of the voting power. All significant intercompany transactions and balances have been eliminated upon consolidation.

The accompanying condensed consolidated financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) for interim financial information and the rules and regulations of the Securities and Exchange Commission (the “SEC”) for reporting on Form 10-Q. Accordingly, they do not include all the information and footnotes required by GAAP for complete financial statements. The accompanying condensed consolidated financial statements should be read in conjunction with the historical consolidated financial statements of the Company for the year ended December 31, 2022 included in ACM’s Annual Report on Form 10-K for the fiscal year ended December 31, 2022.

The accompanying condensed consolidated financial statements are unaudited. In the opinion of management, these unaudited condensed consolidated financial statements of the Company reflect all adjustments that are necessary for a fair presentation of the Company’s financial position and results of operations. Such adjustments are of a normal recurring nature, unless otherwise noted. The balance sheet as of June 30, 2023 and the results of operations for the three and six months ended June 30, 2023 are not necessarily indicative of the results to be expected for any future period.

Common Stock Split

Unless otherwise indicated, all prior period share and per share amounts, common stock, other capital, and retained earnings information presented in the accompanying financial statements and these notes thereto reflect the impact of the Stock Split (Note 1). Proportional adjustments were also made to outstanding awards under the Company’s stock-based compensation plans.

Reclassification

Certain prior period balances have been reclassified to conform to the current period presentation in the accompanying notes. These reclassifications did not have a material impact on the previously reported financial statements.

Recent Restrictions by U.S. Department of Commerce, Japan and Netherlands for PRC-based Semiconductor Producers

Substantially all of ACM Shanghai’s customers and a significant portion of its operations are based in the PRC. In 2022, Shanghai Huali Microelectronics Corporation, together with Huahong Semiconductor Ltd., collectively known as The Shanghai Huahong (Group) Company, Ltd., or The Huali Huahong Group, a leading PRC-based foundry, accounted for 18.2% of our revenue; Semiconductor Manufacturing International Corporation, or SMIC, a leading PRC-based foundry, accounted for 15.6% of our revenue; and Yangtze Memory Technologies Co., Ltd., or YMTC, a leading PRC-based memory chip company, together with one of its subsidiaries, accounted for 10.0% of our revenue. In 2021, The Huali Huahong Group accounted for 28.1% of our revenue; and YMTC, together with one of its subsidiaries, accounted for 20.8% of our revenue.

In early October 2022 the U.S. government enacted new rules aimed at restricting U.S. support for the PRC’s ability to manufacture advanced semiconductors. The rules include new export license requirements for exports, re-exports or transfers to or within the PRC of additional types of semiconductor manufacturing items, items for use in manufacturing designated types of semiconductor manufacturing equipment in the PRC, and semiconductor manufacturing equipment for use at certain IC manufacturing and development facilities in the PRC. In addition, the U.S. government imposed new restrictions by which U.S. persons anywhere in the world are effectively barred from engaging in certain activities related to the development and production of certain semiconductors at PRC fabrication facilities meeting specified criteria, even if no items subject to the U.S. Export Administration Regulations or EAR are involved.

ACM Shanghai has determined that several of its customers have PRC-based facilities that meet the restricted criteria, and has also determined that several of its products, and/or components for its products, may meet the parameters of export control classification numbers, or ECCNs, affected by the restrictions. Accordingly, depending on the details of the final implementation of these new restrictions and associated licensing policies, ACM may not be able to import, or may face substantial restrictions in importing, certain parts from the United States or parts subject to U.S. export controls from outside the United States to support tool shipments to such facilities, or to be embedded into tools defined by affected ECCNs. ACM and ACM Shanghai have implemented modifications to their existing business policies and practices in response to the new restrictions, including by imposing limitations on the activities of their U.S. persons and undertaking measures in connection with their supply chains more broadly to comply with the new regulations.

ACM and ACM Shanghai believe that as a result of the new restrictions, several ACM Shanghai customers have significantly reduced production and related capital spending at facilities meeting the restricted advanced node capabilities. In addition, ACM Shanghai has experienced challenges as the companies in its supply chain adapt their policies to the new regulations. These factors had an adverse impact on ACM Shanghai’s shipments and sales for both the three and six months ended June 30, 2023.

During the three and six months ended June 30, 2023, two prominent exporters of advanced semiconductor manufacturing equipment, the Netherlands and Japan, announced and began to implement plans to join the United States in imposing semiconductor-focused export controls.

On May 23, 2023, the Japanese government issued the final amendment to an ordinance implementing new export controls to require licensing for export of certain advanced semiconductor manufacturing equipment, effective as of July 23, 2023.

The amendment expands the scope of export controls to prohibit (1) exporting twenty-three additional categories of items relating to semiconductor manufacturing and (2) providing technology relating to manufacturing, development or use of these categories of items, in both cases, without an advance license. While the expanded export controls apply to exports to any jurisdiction, exports to certain jurisdictions, such as the United States, are expected to be permitted by certain types of broad general licenses. However, it remains to be seen whether the Japanese government will authorize any exports of these items to the PRC by a limited general license or specific license, if at all.

On June 30, 2023, the Government of the Netherlands published additional export control measures for advanced semiconductor manufacturing equipment. The Regulation on Advanced Semiconductor Manufacturing Equipment will enter into force on September 1, 2023. From that point on, the export of certain advanced semiconductor manufacturing equipment, as specified in the Annex to the Regulation, will be subject to a national export license authorization requirement by the Dutch Central Import and Export Service.

As a result of the new restrictions imposed by the Japanese and Dutch governments, ACM Shanghai and/or several of its customers in the PRC may be impacted by, and required to reduce their production capabilities due to, the lack of, or reduced, ability to source items relating to semiconductor manufacturing from Japan and the Netherlands.

In addition to the range of controls coming out of other jurisdictions, the United States is also reportedly considering expansions to existing semiconductor manufacturing export controls, any of which could potentially impact ACM and ACM Shanghai. ACM and ACM Shanghai anticipate these factors will continue to have an adverse impact on ACM Shanghai's shipments and sales in future periods.

See "Part II. Item 1A – Risk Factors – Regulatory Risks – Our ability to sell our tools to customers in the PRC has been impacted, and will likely continue to be materially and adversely impacted, by export license requirements, other regulatory changes, or other actions taken by the U.S. or other governmental agencies" for more information.

COVID-19 Assessment

Notwithstanding that the World Health Organization ended the public health emergency of international concern status for COVID-19 in May 2023, the worldwide COVID-19 health pandemic and related government and private sector responsive actions have adversely affected the economies and financial markets of many countries and specifically have negatively impacted the Company's business operations, including in the PRC and the United States. The continuation of the COVID-19 pandemic or related after-effects could continue to result in economic uncertainty and global economic policies that could reduce demand for the Company's products and its customers' chips and have a material adverse impact on the Company's business, operating results and financial condition.

The Company conducts substantially all of its product development, manufacturing, support and services in the PRC, and those activities have been directly impacted by COVID-19 and related restrictions on transportation and public appearances.

- In March 2022, several regions in China began to experience elevated levels of COVID-19 infections, and the PRC government instituted policies to restrict the spread of the virus. The policies began with an increase of "spot quarantines," under which a positive polymerase chain reaction (PCR) or other test would result in the quarantining of individual buildings, groups of buildings, or even full neighborhoods. The policies were later expanded to full-city quarantines, including in the City of Shanghai, where substantially all of ACM Shanghai's operations are located. COVID-19 related restrictions in Shanghai began to limit employee access to, and logistics activities of, ACM Shanghai's offices and production facilities in the Pudong district of Shanghai in March 2022, and therefore limited ACM Shanghai's ability to ship finished products to customers and to produce new products. Spot quarantines in mid-March 2022 began to impact a number of ACM Shanghai's employees and led to a closure of ACM Shanghai's administrative and R&D offices in Zhangjiang in the Pudong district. A subsequent quarantine of the entire Pudong region of Shanghai was imposed in late March 2022 and impacted the operation of ACM Shanghai's Chuansha production facility. Although the facility remained partially operational with a number of personnel staying on-site for a prolonged period, the level of production declined significantly versus more normal levels. Furthermore, a number of the Company's customers have substantial operations based in operations areas of the PRC, including in the City of Shanghai, subject to full-city restrictions, which began limiting the operations of those customers in the first quarter of 2022, including inhibiting their ability to receive, implement and operate new tools for their manufacturing facilities. As a result, in some cases, ACM Shanghai was required to defer shipments of finished products to these customers because of operational and logistical limitations affecting customers other than, or in addition to, ACM Shanghai.

- In late April 2022, ACM Shanghai began to increase the level of its operations at the Chuansha manufacturing site using the “closed loop method,” in which a limited collection of workers remain together as a group between a single hotel, the ACM Shanghai facility, and a dedicated bus transportation route, also referred to as “two spots and one line,” and had resumed substantially all of its Chuansha manufacturing site operations by the end of the second quarter of 2022. On July 1, 2022, the Company transitioned operations at the Chuansha facility to a more normal production process, in which workers were able to return home following their factory shifts.
- In mid-June 2022, substantially all of ACM Shanghai’s R&D and administrative employees were allowed to return to work at the ZhangJiang facility following a 6-8 weeks period of restricted access during which many employees had continued to work from home.
- With the relaxation of the PRC’s zero-COVID policies in December 2022, and the subsequent widespread infections of China’s population, during the six months ended June 30, 2023, the Company experienced additional inefficiencies due in part to infections and the resultant absenteeism experienced by its employees and the general population of China.

Use of Estimates

The preparation of the condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the balance sheet date and the reported revenues and expenses during the reported period in the condensed consolidated financial statements and accompanying notes. The Company’s significant accounting estimates and assumptions include, but are not limited to, those used for revenue recognition and deferred revenue, the valuation and recognition of fair value of trading securities, stock-based compensation arrangements, realization of deferred tax assets, assessment for impairment of long-lived assets, allowance for doubtful accounts, inventory valuation, depreciable lives of property, plant and equipment and useful lives of intangible assets.

Management evaluates these estimates and assumptions on a regular basis. Actual results could differ from those estimates and assumptions.

Correction of Immaterial Error in Prior Year

During the six months ended June 30, 2023, the Company became aware of an immaterial error in its previously issued financial statements regarding deferred tax assets and equity income in net income of affiliates, in the net amount of $1.6 million. The change resulted in adjustment to increase retained earnings of $1.6 million as of January 1, 2023, investment in equity method affiliate, net of tax of $(0.8) million, and deferred tax assets of $2.4 million in the condensed consolidated balance sheet for the six months ended June 30, 2023.

The Company evaluated the effect of these errors on the financial statements as of December 31, 2022, under ASC 250 “Accounting Changes and Error Corrections”, Staff Accounting Bulletin 99 “Materiality”, and Staff Accounting Bulletin 108 “Considering the Effects of Prior Year Misstatements in Current Year Financial Statements”, and determined that these errors were not material to the previously issued financial statements.

Change in Accounting Principle

Prior to January 1, 2023, the Company's bad debt reserve was based on specific accounts that it deemed potentially uncollectible. Effective on January 1, 2023, the Company adopted ASU 2016-13, *Financial Instruments – Credit Losses (Topic 326)* (ASU 2016-13) that each reporting entity should estimate an allowance for expected credit losses, which is intended to result in more timely recognition of loss. Under the new approach, the Company expanded to include the certain percentage of bad debt reserve based on the outstanding accounts receivables aging. Adoption of ASU 2016-13 is considered as a change in accounting principle which requires using a modified retrospective approach through a cumulative-effect adjustment to retained earnings as of the effective date to align existing credit loss methodology with the new standard. The cumulative-effect adjustment, net of tax impact, to retained earnings as of January 1, 2023 was $(1,769).

(In thousands, except share, percentage and per share data)

Cash and Cash Equivalents

Cash and cash equivalents consist of cash on hand, bank deposits that are unrestricted as to withdrawal and use, and highly liquid investments with an original maturity date of three months or less at the date of purchase. At times, cash deposits may exceed government-insured limits.

The following table presents cash and cash equivalents, according to jurisdiction as of June 30, 2023 and December 31, 2022:

	June 30, 2023	December 31, 2022
United States	$ 23,732	$ 25,011
Mainland China	123,071	129,695
China Hong Kong	107,459	89,187
South Korea	3,107	4,007
Singapore	51	51
Total	$ 257,420	$ 247,951

The amounts in mainland China do not include short-term and long-term time deposits which totaled $118,104 and $172,448 at June 30, 2023 and December 31, 2022, respectively.

Cash held in the U.S. exceeds the Federal Deposit Insurance Corporation insurance limits and is subject to risk of loss. No losses have been experienced to date.

Cash amounts held by ACM Shanghai at PRC banks in mainland China are subject to a series of risk control regulatory standards from PRC bank regulatory authorities. ACM Shanghai is required to obtain approval from the State Administration of Foreign Exchange (“SAFE”) to transfer funds into or out of the PRC. SAFE requires a valid agreement to approve the transfers, which are processed through a bank. Other than these PRC foreign exchange restrictions, ACM Shanghai is not subject to any PRC restrictions and limitations on its ability to transfer funds to ACM Research or among our other subsidiaries. However, cash held by ACM Shanghai in mainland China does exceed applicable insurance limits and is subject to risk of loss, although no such losses have been experienced to date.

ACM California periodically procures goods and services on behalf of ACM Shanghai. For these transactions, ACM Shanghai makes cash payments to ACM California in accordance with applicable transfer pricing arrangements. For the three and six months ended June 30, 2023, cash payments from ACM Shanghai to ACM California for the procurement of goods and services was $14,500 and $25,431 respectively. For the three and six months ended June 30, 2022, cash payments from ACM Shanghai to ACM California for the procurement of goods and services was $5,647 and $13,561 respectively ACM California periodically borrows funds for working capital advances from its direct parent, CleanChip. ACM California repays or renews these intercompany loans in accordance with their terms.

For sales through CleanChip and ACM Research, a certain amount of sales or advanced payments from customers is repatriated back to ACM Shanghai in accordance with applicable transfer pricing arrangements in the ordinary course of business. ACM Research provides services to certain customers located in the U.S., Europe and other regions outside of mainland China to support the evaluation of first tools and provide support for tools under warranty on behalf of ACM Shanghai. For these transactions, ACM Shanghai makes cash payments to ACM Research, Inc. in accordance with applicable transfer pricing arrangements.

Subsequent to June 30, 2020, with the exception of sales and services-related transfer-pricing payments in the ordinary course of business, no cash transfers, dividends or other payments or distributions have been made between ACM Research and ACM Shanghai. The Company intends to retain any future earnings to finance the operations and expenses of the business, and does not expect to distribute earnings or declare or pay any dividends in the foreseeable future.

(In thousands, except share, percentage and per share data)

Amounts held in South Korea exceed the Korea Deposit Insurance Corporation insurance limits and is subject to risk of loss. No losses have been experienced to date.

There is no additional restriction for the transfer of cash from bank accounts in the U.S., South Korea, and Hong Kong.

For the three and six months ended June 30, 2023 and 2022, with the exception of sales and services-related transfer-pricing payments in the ordinary course of business, no transfers, dividends, or distributions have been made between ACM Research and its subsidiaries, including ACM Shanghai, or to holders of ACM Research Class A common stock.

Time Deposits

Time deposits are deposited with banks in mainland China with fixed terms and interest rates which cannot be withdrawn before maturity. They are also subject to the risk control regulatory standards described above upon maturity.

At June 30, 2023 and December 31, 2022, time deposits consisted of the following:

	June 30, 2023	December 31, 2022
Deposit in China Merchant Bank which will mature on January 29, 2023 with an annual interest rate of 2.25%	$ —	$ 38,772
Deposit in China Everbright Bank which will mature on January 29, 2023 with an annual interest rate of 2.25%	$ —	$ 14,360
Deposit in China Everbright Bank which will mature on May 22, 2023 with an annual interest rate of 5.07%	$ —	$ 3,000
Deposit in China Industrial Bank which will mature on January 30, 2023 with an annual interest rate of 2.15%	$ —	$ 14,360
Deposit in China Merchant Bank which will mature on January 29, 2024 with an annual interest rate of 2.85%	$ 27,680	$ 28,720
Deposit in Bank of Ningbo which will mature on February 17, 2024 with an annual interest rate of 2.85%	$ 41,520	$ 43,080
Deposit in Shanghai Pudong Development Bank which matures on October 20, 2025 with an annual interest rate of 3.10%	$ 6,920	$ 7,180
Deposit in Shanghai Pudong Development Bank which matures on November 14, 2025 with an annual interest rate of 3.10%	$ 6,920	$ 7,180
Deposit in Shanghai Pudong Development Bank which matures on December 8, 2025 with an annual interest rate of 3.10%	$ 4,152	$ 4,308
Deposit in Shanghai Pudong Development Bank which matures on December 15, 2025 with an annual interest rate of 3.10%	$ 4,152	$ 4,308
Deposit in Shanghai Pudong Development Bank which matures on December 30, 2025 with an annual interest rate of 3.10%	$ 6,920	$ 7,180
Deposit in China Everbright Bank which will mature on July 4, 2023 with an annual interest rate of 5.82%	$ 3,000	$ —
Deposit in China Everbright Bank which will mature on November 22, 2023 with an annual interest rate of 5.43%	$ 3,000	$ —
Deposit in China Merchant Bank which will mature on January 30, 2026 with an annual interest rate of 3.15%	$ 13,840	$ —
	$ 118,104	$ 172,448

For the three months ended June 30, 2023 and 2022, interest income related to time deposits was $937 and $951, respectively. For the six months ended June 30, 2023 and 2022, interest income related to time deposits was $1,912 and $1,539, respectively.

Financial Instruments

The Company maintains an investment portfolio of various holdings, types, and maturities. Investments classified as trading securities are recorded at fair value based upon quoted market prices. Differences between the cost and fair value of trading securities are recognized as other income (expense), net in the condensed consolidated statements of operations and comprehensive income (loss).

The Company periodically invests in equity securities. For equity investments that do not have a readily determinable fair value, the Company records them using either 1) the measurement alternative which measures the equity investments at cost minus impairment, if any, plus or minus changes resulting from qualifying observable price changes; or 2) the equity method whereby the Company recognizes its proportional share of the income or loss from the equity method investment on a one-quarter lag. The equity method is utilized when the Company does not have the ability to control the investee but is deemed to have the ability to exercise significant influence over the investee’s operating or financial policies. For equity investments that have a readily determinable fair value, the Company records them at fair market value on a recurring basis based upon quoted market prices. Realized and unrealized gains and losses resulting from application of the measurement alternative, the impact of the application of the equity method to the Company’s equity investments, and recognition of changes in fair market value, as applicable, are recognized as other income (expense), net in the condensed consolidated statements of operations and comprehensive income (loss).

The Company defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required or permitted to be recorded at fair value, the Company considers the principal or most advantageous market in which it would transact, and it considers assumptions that market participants would use when pricing the asset or liability.

A fair value hierarchy has been established that prioritizes the inputs to valuation techniques used to measure fair value. The level of an asset or liability in the hierarchy is based on the lowest level of input that is significant to the fair value measurement. Assets and liabilities carried at fair value are classified and disclosed in one of the following three categories:

Level 1: Valuations based on quoted prices in active markets for identical assets or liabilities with sufficient volume and frequency of transactions.

Level 2: Valuations based on observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active for identical assets or liabilities, or model-derived valuations techniques for which all significant inputs are observable in the market or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3: Valuations based on unobservable inputs to the valuation methodology that are significant to the measurement of fair value of assets or liabilities and based on non-binding, broker-provided price quotes and may not have been corroborated by observable market data.

The Company’s primary financial instruments include its cash, cash equivalents, short term and long term deposits, restricted cash, short-term and long-term investments, accounts receivable, accounts payable, long-term debt and leases. The estimated fair value of cash, time deposits, accounts receivable, and accounts payable approximates their carrying value due to the short period of time to their maturities.

ACM RESEARCH, INC.
Notes to the Condensed Consolidated Financial Statements
(In thousands, except share, percentage and per share data)

	Quoted Prices in Active Markets for Identical Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
As of June 30, 2023:				
Assets				
Cash equivalents	$ 257,420	$ —	$ —	$ 257,420
Trading securities	6,375	—	—	6,375
	$ 263,795	$ —	$ —	$ 263,795
Liabilities				
Short-term borrowings	$ —	$ 53,976	$ —	$ 53,976
Long-term borrowings	—	19,138	—	19,138
	$ —	$ 73,114	$ —	$ 73,114
As of December 31, 2022:				
Assets				
Cash equivalents	$ 247,951	$ —	$ —	$ 247,951
Trading securities	20,209	—	—	20,209
	$ 268,160	$ —	$ —	$ 268,160
Liabilities				
Short-term borrowings	$ —	$ 56,004	$ —	$ 56,004
Long-term borrowings	—	21,009	—	21,009
	$ —	$ 77,013	$ —	$ 77,013

(In thousands, except share, percentage and per share data)

Basic and Diluted Net Income per Share of Common Stock

Basic and diluted net income per share of common stock are calculated as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Numerator:				
Net income	$ 33,597	$ 16,748	$ 42,560	$ 9,305
Less: Net income attributable to non-controlling interests	6,772	4,512	8,590	2,855
Net income available to common stockholders, basic	$ 26,825	$ 12,236	$ 33,970	$ 6,450
Less: Dilutive effect arising from stock-based awards by ACM Shanghai	(303)	(230)	(395)	(147)
Net income available to common stockholders, diluted	$ 26,522	$ 12,006	$ 33,575	$ 6,303
Weighted average shares outstanding, basic	59,898,149	59,177,643	59,817,903	59,003,484
Effect of dilutive securities	5,031,489	6,301,034	5,150,997	6,769,489
Weighted average shares outstanding, diluted	64,929,638	65,478,677	64,968,900	65,772,973
Net income per share of common stock:				
Basic	$ 0.45	$ 0.21	$ 0.57	$ 0.11
Diluted	$ 0.41	$ 0.18	$ 0.52	$ 0.10

ACM Research has been authorized to issue Class A and Class B common stock since redomesticating in Delaware in November 2016. The two classes of common stock are substantially identical in all material respects, except for voting rights. Since ACM Research did not declare any cash dividends during the three and six months ended June 30, 2023 or 2022, the net income per share of common stock attributable to each class is the same under the “two-class” method. As such, the two classes of common stock have been presented on a combined basis in the condensed consolidated statements of operations and comprehensive income (loss) and in the above computation of net income per share of common stock.

Diluted net income per share of common stock reflects the potential dilution from securities, including stock options and issued warrants, that could share in ACM Research’s earnings. Certain potential dilutive securities were excluded from the net income per share calculation because the impact would be anti-dilutive. ACM Research’s potential dilutive securities consist of 302,561 and 394,756 stock options for the three and six months ended June 30, 2023 and 146,894 and 230,095 stock options for the three and six months ended June 30, 2022.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to credit risk consist principally of cash and cash equivalents, time deposits, and accounts receivable. The Company deposits and invests its cash with financial institutions that management believes are creditworthy.

The Company is potentially subject to concentrations of credit risks in its accounts receivable and revenue. For the three months ended June 30, 2023 and 2022, three customers accounted for 52.1% and four customers accounted for 59.7% of revenue, respectively. For the six months ended June 30, 2023 and 2022, one customer accounted for 17.5% and four customers accounted for 55% of revenue, respectively.

As of June 30, 2023 and December 31, 2022, three customers accounted for 40.3% and two customers accounted for 42.6%, respectively, of the Company's accounts receivables. The Company believes that the receivable balances from these largest customers do not represent a significant credit risk based on past collection experience.

Recently Adopted Accounting Pronouncements

In June 2016, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or ASU, 2016-13, *Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. ASU 2016-13 replaced the pre-existing incurred loss impairment methodology with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. ASU 2016-13 requires use of a forward-looking expected credit loss model for accounts receivables, loans and other financial instruments. ASU 2016-13 is effective for fiscal years beginning after December 15, 2019, with early adoption permitted but the effective date is changed by ASU 2019-10 below.

In November 2019, the FASB issued ASU 2019-10, *Financial Instruments – Credit Losses (Topic 326), Derivatives and Hedging (Topic 815), and Leases (Topic 842): Effective Dates.* In advance of the issuance of ASU 2019-10, the Company adopted ASU 2017-12, *Derivatives and Hedging (Topic 815)* and ASU 2016-02, *Leases (Topic 842) since January 1, 2019.* ASU 2019-10 defers the effective date of ASU 2016-13 for public filers that are considered small reporting companies ("SRC") as defined by the SEC to fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. Since the Company was eligible to be an SRC based on its SRC determination as of November 15, 2019 (which is the issuance date of ASU 2019-10) in accordance with SEC regulations, the Company has adopted amendments in ASU 2016-13 for the year beginning January 1, 2023. Adoption of the standard requires using a modified retrospective approach through a cumulative-effect adjustment to retained earnings as of the effective date to align existing credit loss methodology with the new standard. Please refer to change in accounting principle (Note 2) for details.

Recent Accounting Standards Not Yet Adopted

In June 2022, the FASB issued an accounting standard update which clarifies how the fair values of equity securities subject to contractual sale restrictions is determined (Topic 820). The amendment clarifies that a contractual sale restriction should not be considered in measuring fair value. It also requires certain qualitative and quantitative disclosures related to equity securities subject to contractual sale restrictions. This authoritative guidance will be effective for us in the first quarter of January 1, 2024, with early adoption permitted. We are currently evaluating the effect of this new guidance on our consolidated financial statements.

(In thousands, except share, percentage and per share data)

NOTE 3 – REVENUE FROM CONTRACTS WITH CUSTOMERS

The Company assesses revenues based upon the nature or type of goods or services it provides and the geographic location of the related businesses. The following tables present disaggregated revenue information:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Single wafer cleaning, Tahoe and semi-critical cleaning equipment	$ 112,528	$ 72,583	$ 149,142	$ 98,616
ECP (front-end and packaging), furnace and other technologies	19,117	20,500	45,715	32,748
Advanced packaging (excluding ECP), services & spares	12,932	11,312	23,976	15,217
Total Revenue By Product Category	**$ 144,577**	**$ 104,395**	**$ 218,833**	**$ 146,581**
Wet-cleaning and other front-end processing tools	$ 122,415	$ 79,553	$ 178,797	$ 111,254
Advanced packaging, other processing tools, services and spares	22,162	24,842	40,036	35,327
Total Revenue Front-end and Back-End	**$ 144,577**	**$ 104,395**	**$ 218,833**	**$ 146,581**

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Mainland China	$ 134,767	$ 100,275	$ 207,226	$ 142,405
Other Regions	9,810	4,120	11,607	4,176
	$ 144,577	**$ 104,395**	**$ 218,833**	**$ 146,581**

Below are the accounts receivables and contract liabilities balances as of:

	June 30, 2023	December 31, 2022
Accounts receivable	$ 200,745	$ 182,936
Advances from customers	195,485	153,773
Deferred revenue	5,050	4,174

During the six months ended June 30, 2023, advances from customers increased by $41.7 million, due to an increase of payments made by customers for first tools under evaluation, and an increase in customer pre-payments for tools prior to delivery.

NOTE 4 – ACCOUNTS RECEIVABLE

At June 30, 2023 and December 31, 2022, accounts receivable consisted of the following:

	June 30, 2023	December 31, 2022
Accounts receivable	$ 203,327	$ 182,936
Less: Allowance for doubtful accounts	(2,582)	-
Total	$ 200,745	$ 182,936

(In thousands, except share, percentage and per share data)

		June 30, 2023
Cumulative effect of change in accounting principle under ASC 2016-13, before tax, as of January 1, 2023	$	(2,099)
Bad debt expense		(483)
Allowance for doubtful accounts, before tax, as of June 30, 2023	$	(2,582)

The $17.8 million increase in accounts receivable for the first six months of 2023 corresponds to a $72.3 million increase in revenue as compared to the same period in 2022.

The Company reviews accounts receivable on a periodic basis and makes general allowances based on an aging profile of its outstanding balances, and specific allowances when there is doubt as to the collectability of individual balances by considering factors such as the age of the balance, a customer payment history and credit worthiness, and current economic trends. As a result of the Company's adoption of ASU 2016-13 as of January 1, 2023 (Note 2), the Company recorded an allowance for doubtful accounts as of June 30, 2023, as compared to no allowance for doubtful account as of December 31, 2022.

NOTE 5 – INVENTORIES

At June 30, 2023 and December 31, 2022, inventories consisted of the following:

		June 30, 2023		December 31, 2022
Raw materials	$	192,336	$	167,135
Work-in-process		109,830		79,126
Finished goods		168,928		146,911
Total inventory	$	471,094	$	393,172

Inventories are stated at the lower of cost or net realizable value on a moving weighted average basis. At June 30, 2023 and December 31, 2022, the value of finished goods inventory of which were first-tools at customer physical locations for which customers were contractually obligated to take ownership upon acceptance totaled $119,683 and $123,169, respectively.

The $55.9 million increase in raw materials and work-in-process inventory at June 30, 2023 compared to December 31, 2022 was due to additional purchase of supplies to support a higher level of expected total shipments for the next several quarters, and to reduce the risk of supply chain delays to meet anticipated customer demand for the Company's products. The $22.0 million increase in finished goods inventory at June 30, 2023 compared to December 31, 2022 reflects an increase in completed tools not yet shipped to the customer, and a higher value of first-tools under evaluation by existing or prospective customers, due to shipments made, net of customer acceptances during the period.

The Company's products each require a certain degree of customization, and the substantial majority of the work-in-process inventory and finished goods inventory is built to meet a specific customer order for repeat shipment of first tool delivery. At the end of each period, the Company assesses the status of each item in work-in-process and finished goods and inventory. The Company recognizes a loss or impairment if in management's judgement the inventory cannot be sold or used for production, if it has been damaged` or should be considered as obsolete, or if the net realizable value is lower than the cost.

At the end of each period, the Company also assesses the status of its raw materials. The Company recognizes a loss or impairment for any raw materials aged more than three years, for which the Company determines it is not likely to be used in future production, or for which similar materials have not been used for more than six months. The three-year aging is based on the Company's assessment of technology change, its requirement to maintain stock for warranty coverage, and other factors.

(In thousands, except share, percentage and per share data)

During the three months ended June 30, 2023 and 2022, inventory write-downs of $2,919 and $0 were recognized in cost of revenue, respectively. During the six months ended June 30, 2023 and 2022, inventory write-downs of $3,224 and $582 were recognized in cost of revenue, respectively. Write-downs were due to an internal assessment that certain inventory could not be sold or used for production due to damage or obsolescence.

NOTE 6 – PROPERTY, PLANT AND EQUIPMENT, NET

At June 30, 2023 and December 31, 2022, property, plant and equipment consisted of the following:

	June 30, 2023	December 31, 2022
Buildings and plants	$ 81,462	$ 35,864
Manufacturing equipment	13,892	9,298
Office equipment	4,231	3,691
Transportation equipment	396	407
Leasehold improvement	7,361	7,173
Total cost	107,342	56,433
Less: Total accumulated depreciation and amortization	(13,100)	(10,047)
Construction in progress	64,771	36,489
Total property, plant and equipment, net	$ 159,013	$ 82,875

Depreciation and amortization expense for the three months ended June 30, 2023 and 2022 was $2,241 and $1,342 respectively, and $3,955 and 2,555 for the six months ended June 30, 2023 and 2022, respectively. Buildings and plants represent Lingang housing property that was transferred to ACM Lingang in January 2022 at a value of $41,497, which includes the purchase price and accumulated interest, and with estimated useful lives of 30-years (Note 8) and which are pledged as security for loans from China Merchants Bank (Note 12), and facilities for the new headquarters of ACM Shanghai that were transferred to ACM Lingang at a fair value of $49,453 in February 2023 (Note 8).

Construction in progress primarily reflects costs incurred related to the construction of ACM Shanghai's Lingang facilities.

NOTE 7 – LAND USE RIGHT, NET

A summary of land use right is as follows:

	June 30, 2023	December 31, 2022
Land use right purchase amount	$ 8,818	$ 9,149
Less: accumulated amortization	(528)	(457)
Land use right, net	$ 8,290	$ 8,692

In 2020, ACM Shanghai, through its wholly-owned subsidiary ACM Lingang, entered into an agreement for a 50-year land use right in the Lingang region of Shanghai. In July 2020, ACM Lingang began a multi-year construction project for a new 1,000,000 square foot development and production center that will incorporate new manufacturing systems and automation technologies and will provide floor space to support significantly increased production capacity and related research and development activities.

The amortization for the three months ended June 30, 2023 and 2022 was $38 and $50, respectively, and for the six months ended June 30, 2023 and 2022 was $88 and $99, respectively.

(In thousands, except share, percentage and per share data)

The annual amortization of land use right for each of the next five years is as follows:

Year ending December 31,		
remainder of 2023	$	88
2024		176
2025		176
2026		176
2027 and thereafter		7,674
Total	$	8,290

NOTE 8 – OTHER LONG-TERM ASSETS

At June 30, 2023 and December 31, 2022, other long-term assets consisted of the following:

		June 30, 2023		December 31, 2022
Prepayment for property, plant and equipment and other non-current assets	$	811	$	704
Prepayment for property - lease deposit		793		393
Security deposit for land use right		682		708
Prepayment for property - Zhangjiang New Building		—		47,251
Others		1,102		1,209
Total other long-term assets	$	3,388	$	50,265

Prepayment for property - Zhangjiang New Building is for the new corporate headquarters of ACM Shanghai. Pursuant to contractual agreements, ownership of Zhangjiang New Building was transferred to ACM Lingang in February 2023 at a fair value of $49,453. Subsequent to the transfer of ownership, Prepayment for property - Zhangjiang New Building was re-classed to property, plant and equipment (Note 6).

(In thousands, except share, percentage and per share data)

NOTE 9 – SHORT-TERM BORROWINGS

At June 30, 2023 and December 31, 2022, short-term borrowings consisted of the following:

	June 30, 2023	December 31, 2022
Line of credit up to RMB 150,000 from China Everbright Bank,		
1)due on August 17, 2023 with an annual interest rate of 3.40%	$ 8,304	$ 8,616
2)due on September 1, 2023 with an annual interest rate of 3.60%	8,304	8,616
3)due on December 16, 2023 with an annual interest rate of 3.00%	4,152	4,308
Line of credit up to RMB 100,000 from Bank of Communications,		
1)due on August 11, 2023 with an annual interest rate of 3.60%	8,304	8,616
2)due on September 5, 2023 with an annual interest rate of 3.50%	5,536	5,744
Line of credit up to RMB 40,000 from Bank of China,		
1)due on August 26, 2023 with an annual interest rate of 3.15%.	5,536	5,744
Line of credit up to RMB 100,000 from China Merchants Bank,		
1)due on July 21, 2023 with an annual interest rate of 3.50%.	1,246	1,292
2)due on July 27, 2023 with an annual interest rate of 3.50%.	1,246	1,292
3)due on August 1, 2023 with an annual interest rate of 3.50%.	1,246	1,292
4)due on August 3, 2023 with an annual interest rate of 3.50%.	1,246	1,292
5)due on August 7, 2023 with an annual interest rate of 3.50%.	1,246	1,293
6)due on August 14, 2023 with an annual interest rate of 3.50%.	1,246	1,293
7)due on August 15, 2023 with an annual interest rate of 3.50%.	1,243	1,293
8)due on August 21, 2023 with an annual interest rate of 3.50%.	968	1,005
9)due on August 28, 2023 with an annual interest rate of 3.50%.	1,246	1,292
10)due on September 13, 2023 with an annual interest rate of 3.50%.	1,246	1,292
11)due on September 20, 2023 with an annual interest rate of 3.50%.	1,246	1,293
12)due on September 29, 2023 with an annual interest rate of 3.50%.	415	431
Total	$ 53,976	$ 56,004

For the three months ended June 30, 2023 and 2022, interest expense related to short-term borrowings amounted to $484 and $62, respectively, and for the six months ended June 30, 2023 and 2022, interest expense related to short-term borrowings amounted to $974 and $125, respectively.

(In thousands, except share, percentage and per share data)

NOTE 10 – OTHER PAYABLES AND ACCRUED EXPENSES

At June 30, 2023 and December 31, 2022, other payables and accrued expenses consisted of the following:

	June 30, 2023	December 31, 2022
Accrued commissions	$ 16,057	$ 14,890
Accrued warranty	9,179	8,780
Accrued payroll	8,736	12,201
Accrued professional fees	594	724
Accrued machine testing fees	456	1,215
Accrued machine sales fees	8,609	5,874
Accrued Lingang construction fees	11,444	738
Accrued dividend payable	3,951	—
Others	971	7,779
Total	$ 59,997	$ 52,201

NOTE 11 – LEASES

The Company leases space under non-cancelable operating leases for several office and manufacturing locations. These leases do not have significant rent escalation holidays, concessions, leasehold improvement incentives, or other build-out clauses. Further, the leases do not contain contingent rent provisions.

Most leases include one or more options to renew. The exercise of lease renewal options is typically at the Company's sole discretion; therefore, the majority of renewals to extend the lease terms are not included in the Company's right-of-use assets and lease liabilities as they are not reasonably certain of exercise. The Company regularly evaluates the renewal options, and when they are reasonably certain of exercise, the Company includes the renewal period in its lease term.

As most of the Company's leases do not provide an implicit rate, the Company uses its incremental borrowing rate based on the information available at the lease commencement date in determining the present value of the lease payments. The Company has a centrally managed treasury function; therefore, based on the applicable lease terms and the current economic environment, it applies a portfolio approach for determining the incremental borrowing rate.

The components of lease expense were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Operating lease cost	$ 1,252	$ 710	$ 1,740	$ 1,357
Short-term lease cost	310	213	592	388
Lease cost	$ 1,562	$ 923	$ 2,332	$ 1,745

Supplemental cash flow information related to operating leases was as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Cash paid for amounts included in the measurement of lease liabilities:				
Operating cash outflow from operating leases	$ 1,562	$ 923	$ 2,332	$ 1,745

(In thousands, except share, percentage and per share data)

As of June 30, 2023, maturities of outstanding lease liabilities for all operating leases were as follows:

	December 31,
remainder of 2023	$ 1,952
2024	2,741
2025	1,228
2026	1,134
2027	1,131
2028	594
Total lease payments	$ 8,780
Less: Interest	(971)
Present value of lease liabilities	$ 7,809

The weighted average remaining lease terms and discount rates for all operating leases were as follows:

	June 30, 2023	December 31, 2022
Remaining lease term and discount rate:		
Weighted average remaining lease term (years)	3.77	2.00
Weighted average discount rate	3.94 %	4.25 %

NOTE 12 – LONG-TERM BORROWINGS

At June 30, 2023 and December 31, 2022, long-term borrowings consisted of the following:

	June 30, 2023	December 31, 2022
Loan from China Merchants Bank	$ 13,914	$ 15,265
Loans from Bank of China	5,224	5,744
Less: Current portion	(3,239)	(2,322)
	$ 15,899	$ 18,687

The loan from China Merchants Bank is for the purpose of purchasing housing property in Lingang, Shanghai. The loan is repayable in 120 total installments with the last installment due in November 2030, with an annual interest rate of 3.95%. The loan is pledged by the property of ACM Lingang and guaranteed by ACM Shanghai. The housing property was transferred to ACM Lingang in January 2022 (Note 6).

(In thousands, except share, percentage and per share data)

Scheduled principal payments for the outstanding long-term loan, including the current portion, as of June 30, 2023 are as follows:

Year ending December 31	
2023	$ 1,127
2024	6,593
2025	1,748
2026	1,818
2027	1,891
Thereafter	5,961
	$ 19,138

For the three months ended June 30, 2023 and 2022, respectively, interest related to long-term borrowings of $181 and $244 was incurred.

For the six months ended June 30, 2023 and 2022, respectively, interest related to long-term borrowings of $370 and $502 was incurred, of which $370 and $442 was charged to interest expenses and $0 and $60 was capitalized as property plant and equipment and other long-term assets, respectively.

NOTE 13 – OTHER LONG-TERM LIABILITIES

Other long-term liabilities represent government subsidies received from PRC governmental authorities for development and commercialization of certain technology but not yet recognized. At June 30, 2023 and December 31, 2022, other long-term liabilities consisted of the following unearned government subsidies:

	June 30, 2023	**December 31, 2022**
Subsidies to Stress Free Polishing project, commenced in 2008 and 2017	$ 525	$ 611
Subsidies to Electro Copper Plating project, commenced in 2014	102	119
Subsidies to other cleaning tools, commenced in 2020	688	785
Subsidies to SW Lingang R&D development, commenced in 2021	3,857	4,266
Subsidies to CO2 Technology, commenced in 2022	557	965
Other	837	575
Total	$ 6,566	$ 7,321

(In thousands, except share, percentage and per share data)

NOTE 14 – LONG-TERM INVESTMENTS

Equity investee:	**Initial investment dates**	**Investment entity**	**Percent ownership by ACM and subsidiaries**		**Investment purchase price**
Ninebell Co., Ltd. ("Ninebell")	September 2017	ACM	20%	$	1,200
Wooil Flucon Co., ("Wooil")	August 2022	ACM Singapore	20%	$	1,000
Shengyi Semiconductor Technology Co., Ltd. (“Shengyi”)	June 2019	ACM Shanghai	15%	$	109
Hefei Shixi Chanheng Integrated Circuit Industry Venture Capital Fund Partnership (LP) (“Hefei Shixi”)	September 2019	ACM Shanghai	10%		RMB 30,000 ($4,200)
Waferworks (Shanghai) Co., Ltd (“Waferworks”)	October 2021	ACM Shanghai	0.25%	$	1,568

The Company treats each equity investment in the consolidated financial statements under the equity method and they are classified as long-term investments, except for the investment in Waferworks which is measured at cost minus impairment, if any, as there is no readily determinable fair value. Under the equity method, an investment is initially recorded at cost, adjusted for any excess of the Company’s share of the incorporated-date fair values of the investee’s identifiable net assets over the cost of the investment (if any). Thereafter, the investment is adjusted for the post incorporation change in the Company’s share of the investee’s net assets and any impairment loss relating to the investment. The Company concluded that the investments were not impaired and did not record any impairment charges related to the investments for any prior periods.

Equity investee:		**June 30, 2023**		**December 31, 2022**
Ninebell	$	4,673	$	5,199
Wooil		1,026		1,011
Shengyi		1,461		1,168
Hefei Shixi		6,126		8,645
Subtotal		**13,286**		**16,023**
Other investee:				
Waferworks		1,384		1,436
Other		1,452		—
Total		**16,122**		**17,459**

For the three months ended June 30, 2023 and 2022, the Company’s share of equity investees’ net income was $3,920 and $472, respectively, and $3,888 and $401 for the six months ended June 30, 2023 and 2022, respectively, which amounts were included in equity income in net income of affiliates in the accompanying condensed consolidated statements of operations and comprehensive income. For the three and six months ended June 30, 2023, the Company received a dividend payment of $5,095 from an equity investee.

NOTE 15 – TRADING SECURITIES

Pursuant to a Partnership Agreement dated June 9, 2020 (the “Partnership Agreement”) and a Supplementary Agreement thereto dated June 15, 2020 (the “Supplementary Agreement”), ACM Shanghai acquired shares of SMIC in July 2020. As SMIC was listed on the STAR Market, ACM Shanghai’s investment is accounted for as trading securities and is stated at fair market value, which is classified as Level 1 of the hierarchy established under ASC 820, *Fair Value Measurement*, with valuations based on quoted prices for identical securities in active markets at June 30, 2023 and December 31, 2022.

(In thousands, except share, percentage and per share data)

Pursuant to an Agreement entered into on September 19, 2022 (the ‘‘Agreement’’), ACM Shanghai became a limited partner of the Nuode Asset Fund Pujiang No. 783 Single Asset Management Plan (‘‘Nuode Asset Fund’’) a Chinese limited partnership formed by Nuode Asset Management Co., Ltd, a financial services firm based in Shanghai, China Nuode Asset Fund was formed to establish a special fund with the purpose to participate in certain technology related investments in China. Subsequent to the future purchase, any investment will be held by Nuode Asset Fund and restricted for a minimum period of six months. The limited partners of the Nuode Asset Fund contributed a total RMB 160 million ($22,160) to the fund, of which ACM Shanghai contributed RMB 30 million ($4,196), or 18.75% of the contribution on September 27, 2022.

In December 2022, the Nuode Asset Fund purchased shares in the secondary stock offering of a publicly traded PRC-stock listing. The number of shares owned by Nuode Asset Fund was apportioned to all of the limited partners in proportion to their respective capital contributions (18.75% in the case of ACM Shanghai).

At June 30, 2023 and December 31, 2022, the components of trading securities were as follows:

	June 30, 2023	December 31, 2022
Trading securities listed in Shanghai Stock Exchange		
Cost	$ 4,124	$ 14,779
Market value	6,375	20,209

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Unrealized loss on trading securities	$ (2,455)	$ (423)	$ (3,109)	$ (4,281)

For the three and six months ended June 30, 2023, the Company received $6,637 and $17,709 in proceeds from the sale of trading securities, including a realized gain of $3,919 and $7,913, respectively.

NOTE 16 – RELATED PARTY BALANCES AND TRANSACTIONS

Ninebell

Ninebell is an equity investee of ACM (Note 14) and is the Company’s principal supplier of robotic delivery system subassemblies used in our single-wafer cleaning equipment. The Company purchases equipment through arms-length transactions from Ninebell for production in the ordinary course of business. The Company pays for a portion of the equipment in advance and is obligated for the remaining amounts upon receipt of the product. All related party outstanding balances are short-term in nature and are expected to be settled in cash.

Shengyi

Shengyi is an equity investee of ACM Shanghai (Note 14) and is one of the Company’s component suppliers in China. The Company purchases components from Shengyi for production in the ordinary course of business. The Company incurs a service fee related to installation and hook-up fees which is recorded within cost of revenue on the Company’s condensed consolidated statements of operations and comprehensive income (loss). The Company pays for a portion of the raw materials in advance and is obligated for the remaining amounts upon receipt of the product.

(In thousands, except share, percentage and per share data)

The following tables reflect related party transactions in our condensed consolidated financial statements:

Advances to related party	**June 30, 2023**	**December 31, 2022**
Ninebell	$ 1,155	$ 3,322

Accounts payable	**June 30, 2023**	**December 31, 2022**
Ninebell	$ 8,281	$ 10,526
Shengyi	3,598	3,942
Total	$ 11,879	$ 14,468

	Three Months Ended June 30,		**Six Months Ended June 30,**	
Purchase of materials	**2023**	**2022**	**2023**	**2022**
Ninebell	$ 10,604	$ 10,287	$ 27,001	$ 17,666
Shengyi	706	877	2,679	1,462
Total	$ 11,310	$ 11,164	$ 29,680	$ 19,128

	Three Months Ended June 30,		**Six Months Ended June 30,**	
Service fee charged by	**2023**	**2022**	**2023**	**2022**
Shengyi	$ 452	$ 4	$ 730	$ 38

NOTE 17 – COMMON STOCK

ACM is authorized to issue 150,000,000 shares of Class A common stock and 5,307,816 shares of Class B common stock, each with a par value of $0.0001. Each share of Class A common stock is entitled to one vote, and each share of Class B common stock is entitled to twenty votes and is convertible at any time into one share of Class A common stock. Shares of Class A common stock and Class B common stock are treated equally, identically and ratably with respect to any dividends declared by the Board of Directors of ACM unless such Board of Directors declares different dividends to the Class A common stock and Class B common stock by getting approval from a majority of common stockholders.

During the three months ended June 30, 2023, ACM issued 133,135 shares of Class A common stock upon option exercises by employees and non-employees. During the six months ended June 30, 2023, ACM issued 296,204 shares of Class A common stock upon option exercises by employees and non-employees.

During the three months ended June 30, 2022, ACM issued 106,525 shares of Class A common stock upon option exercises by employees and non-employees. During the six months ended June 30, 2022, ACM issued 531,874 shares of Class A common stock upon option exercises by employees and non-employees and an additional 1,002 shares of Class A common stock upon conversion of an equal number of shares of Class B common stock.

At June 30, 2023 and December 31, 2022, the number of shares of Class A common stock issued and outstanding was 54,951,490 and 54,655,286, respectively.

At June 30, 2023 and December 31, 2022, the number of shares of Class B common stock issued and outstanding was 5,021,811 and 5,021,811, respectively.

NOTE 18 – STOCK-BASED COMPENSATION

ACM's stock-based compensation consists of employee and non-employee awards issued under its 1998 Stock Option Plan, its 2016 Omnibus Incentive Plan and as standalone options. The vesting condition may consist of a service period determined by the Board of Directors for a grant or certain performance conditions determined by the Board of Directors for a grant. The fair value of the stock options granted with a service period based condition is estimated at the date of grant using the Black-Scholes option pricing model. The fair value of the stock options granted with a market based condition is estimated at the date of grant using the Monte Carlo simulation model.

(In thousands, except share, percentage and per share data)

The following table summarizes the components of stock-based compensation expense included in the consolidated statements of operations:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Stock-Based Compensation Expense:				
Cost of revenue	$ 125	$ 140	$ 250	$ 253
Sales and marketing expense	431	574	862	928
Research and development expense	709	656	1,410	1,067
General and administrative expense	752	599	1,563	1,095
	$ 2,017	$ 1,969	$ 4,085	$ 3,343

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Stock-based compensation expense by type:				
Employee stock option plan	$ 1,975	$ 1,872	$ 3,993	$ 3,145
Non-employee stock option plan	12	12	23	23
Subsidiary stock option plan	30	85	69	175
	$ 2,017	$ 1,969	$ 4,085	$ 3,343

Employee Awards

The following table summarizes the Company's employee share option activities during the six months ended June 30, 2023:

	Number of Option Shares	Weighted Average Grant Date Fair Value	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term
Outstanding at December 31, 2022	**9,211,641**	**$ 3.58**	**$ 8.24**	**6.36 years**
Granted	24,000	6.54	11.85	
Exercised	(140,775)	1.64	4.00	
Forfeited/cancelled	(24,219)	11.88	24.45	
Outstanding at June 30, 2023	**9,070,647**	**$ 3.64**	**$ 8.11**	**5.59 years**
Vested and exercisable at June 30, 2023	6,635,252			

As of June 30, 2023 and December 31, 2022, $11,927 and $16,009, respectively, of total unrecognized employee stock-based compensation expense, net of estimated forfeitures, related to stock-based awards for ACM were expected to be recognized over a weighted-average period of 1.19 years and 1.53 years, respectively. Total recognized compensation cost may be adjusted for future changes in estimated forfeitures.

(In thousands, except share, percentage and per share data)

The fair value of options granted to employees with a service period based condition is estimated on the grant date using the Black-Scholes valuation with following assumptions:

	Six Months Ended June 30, 2023	Years ended December 31, 2022
Fair value of share of common stock (1)	$11.85	$16.83-$25.45
Expected term in years(2)	6.25	5.50-6.25
Volatility(3)	52%	49.43%-50.87%
Risk-free interest rate(4)	4%	1.7%-3.04%
Expected dividend(5)	0%	0%

(1) Equal to closing value on the grant date.
(2) Expected term of share options is based on the average of the vesting period and the contractual term for each grant according to Staff Accounting Bulletin 110.
(3) Volatility is calculated based on the historical volatility of ACM's comparable companies in the period equal to the expected term of each grant.
(4) Risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected term of the share options in effect at the time of grant.
(5) Expected dividend is assumed to be 0% as ACM has no history or expectation of paying a dividend on its common stock.

Non-employee Awards

The following table summarizes the Company's non-employee share option activities during the six months ended June 30, 2023:

	Number of Option Shares	Weighted Average Grant Date Fair Value	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term
Outstanding at December 31, 2022	**1,483,658**	**$ 0.38**	**$ 1.15**	**3.68 years**
Exercised	(155,429)	0.24	0.57	
Forfeited/cancelled	(8,103)	0.22	0.50	
Outstanding at June 30, 2023	**1,320,126**	**$ 0.40**	**$ 1.22**	**3.04 years**
Vested and exercisable at June 30, 2023	1,308,876			

As of June 30, 2023 and December 31, 2022, $32 and $55, respectively, of total unrecognized non-employee stock-based compensation expense, net of estimated forfeitures, related to stock-based awards were expected to be recognized over a weighted-average period of 0.03 years and 0.06 years, respectively. Total recognized compensation cost may be adjusted for future changes in estimated forfeitures.

ACM Shanghai Option Grants

In January 2020, ACM Shanghai adopted a 2019 Stock Option Incentive Plan (the "Subsidiary Stock Option Plan") that provides for, among other incentives, the granting to officers, directors, employees of options to purchase shares of ACM Shanghai's common stock. The fair value of the stock options granted is estimated at the date of grant based on the Black-Scholes option pricing model using assumptions generally consistent with those used for ACM's stock options. Because ACM Shanghai shares have a short history of trading on a public market, the expected volatility is estimated with reference to the average historical volatility of a group of publicly traded companies that are believed to have similar characteristics to ACM Shanghai.

(In thousands, except share, percentage and per share data)

The following table summarizes the ACM Shanghai stock option activities during the six months ended June 30, 2023:

	Number of Option Shares in ACM Shanghai	Weighted Average Grant Date Fair Value	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term
Outstanding at December 31, 2022	**5,377,500**	**$ 0.23**	**$ 1.93**	**1.76 years**
Exercise	(2,150,309)	$ 0.20	$ 1.88	
Forfeited/cancelled	(92,308)	$ 0.23	$ 1.88	
Outstanding at June 30, 2023	**3,134,883**	**$ 0.23**	**$ 1.90**	**1.35 years**
Vested and exercisable at June 30, 2023	492,308			

During the three months ended June 30, 2023 and 2022, the Company recognized stock-based compensation expense of $2,017 and $1,969, respectively, and during the six months ended June 30, 2023 and 2022, the Company recognized stock-based compensation expense of $69 and $175, respectively, related to stock option grants of ACM Shanghai.

As of June 30, 2023 and December 31, 2022, $76 and $160, respectively, of total unrecognized non-employee stock-based compensation expense, net of estimated forfeitures, related to ACM Shanghai stock-based awards were expected to be recognized over a weighted-average period of 0.4 years and 0.8 years, respectively. Total recognized compensation cost may be adjusted for future changes in estimated forfeitures.

NOTE 19 – INCOME TAXES

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carry-forwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period during which such rates are enacted.

The Company considers all available evidence to determine whether it is more likely than not that some portion or all of the deferred tax assets will be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become realizable. Management considers the scheduled reversal of deferred tax liabilities (including the impact of available carryback and carry-forward periods) and projected taxable income in assessing the realizability of deferred tax assets. In making such judgments, significant weight is given to evidence that can be objectively verified.

As of each reporting date, management considers new evidence, both positive and negative, that could affect its view of the future realization of deferred tax assets. Prior to September 30, 2019, the Company had recorded a valuation allowance for the full amount of net deferred tax assets in the United States, as the realization of deferred tax assets was uncertain. Since September 30, 2019, the Company has not maintained a valuation allowance except for a partial valuation allowance on certain U.S. deferred tax assets. In order to recognize the remaining U.S. deferred tax assets that continue to be subject to a valuation allowance, the Company will need to generate sufficient U.S. taxable income in future periods before the expiration of the deferred tax assets governed by the tax code.

ACM Shanghai has shown a three-year historical cumulative profit and has projections of future income. As a result, the Company does not maintain a valuation allowance.

The Company accounts for uncertain tax positions in accordance with the authoritative guidance on income taxes under which the Company may only recognize or continue to recognize tax positions that meet a more likely than not threshold.

(In thousands, except share, percentage and per share data)

The Company recognizes accrued interest and penalties related to unrecognized tax benefits as a component of the provision for income taxes.

The Company's effective tax rate differs from statutory rates of 21% for U.S. federal income tax purposes and 15% to 25% for Chinese income tax purposes due to the effects of the valuation allowance and certain permanent differences from book-tax differences, including stock based compensation, deemed dividend income under Subchapter F of the U.S. Internal Revenue Code of 1986, as amended (Subpart F), and global intangible low-taxed income (GILTI) inclusions, and R&D super deduction. As a result, the Company recorded income tax expense of $10,517 and $3,668 during the six months ended June 30, 2023 and 2022, respectively. The increase in the Company's effective income tax rate for the six months ended June 30, 2023 compared to the same period of the prior year was primarily due to a decreased benefit from the specified deduction to the GILTI inclusion as a result of reduced net operating loss utilization which partially limited the specified deduction in the prior year, and reduced GILTI inclusion related to the amount of capitalized R&D expenses relative to pre-tax income.

Under the change in Section 174 made by the Tax Cuts and Jobs Act of 2017 (the "TCJA") which became effective on January 1, 2022, the Company is required to capitalize, and subsequently amortize R&D expenses over fifteen years for research activities conducted outside of the U.S. The capitalization of overseas R&D expenses results in a significant increase in the Company's global intangible low-taxed income inclusion. Congress is considering legislation, but legislation has not passed, that would defer the capitalization requirement to later years.

The Company had total unrecognized tax benefits of $8,448 as of both June 30, 2023 and December 31, 2022. The significant increase in 2022 was primarily because the Company claimed a deduction for realized gains on stock option exercises for China-based employees on its Chinese tax return, as well as the uncertainty in the amount of capitalized R&D expenses that would increase GILTI inclusion. If recognized, the net impact to effective rate, after indirect offset, would be $6,178. The Company will recognize interest and penalties, when they occur, related to uncertain tax provisions as a component of tax expense. For the six months ended June 30, 2023 and 2022, $569 and $106 of interest or penalties was recognized, respectively.

The Company files income tax returns in the United States and state and foreign jurisdictions. The federal, state and foreign income tax returns are under the statute of limitations subject to tax examinations for the tax years ended December 31, 2001 through December 31, 2022. To the extent the Company has tax attribute carry-forwards, the tax years in which the attribute was generated may still be adjusted upon examination by the U.S. Internal Revenue Service, state or foreign tax authorities to the extent utilized in a future period.

The Company's four PRC subsidiaries, ACM Shanghai, ACM Wuxi, ACM Beijing and ACM Lingang, are liable for PRC corporate income taxes at the rates of 15%, 25%, 25% and 25%, respectively. Pursuant to the Corporate Income Tax Law of the PRC, ACM's PRC subsidiaries generally would be liable for PRC corporate income taxes as a rate of 25%. According to Guoshuihan 2009 No. 203, an entity certified as an "advanced and new technology enterprise" is entitled to a preferential income tax rate of 15%. ACM Shanghai was certified as an "advanced and new technology enterprise" in 2012 and again in 2016, 2018, and 2021, with an effective period of three years. In 2021, ACM Shanghai was certified as an eligible integrated circuit production enterprise and was entitled to a preferential income tax rate of 12.5% from January 1, 2020 to December 31, 2022.

Income tax expense was as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Total income tax expense	$ 7,638	$ 7,679	$ 10,517	$ 3,668

NOTE 20 – COMMITMENTS AND CONTINGENCIES

The Company leases offices under non-cancelable operating lease agreements. See Note 11 for future minimum lease payments under non-cancelable operating lease agreements with initial terms of one year or more.

(In thousands, except share, percentage and per share data)

As of June 30, 2023, the Company had $94,793 of open capital commitments.

Covenants in Lingang's Grant Contract for State-owned Construction Land Use Right in Shanghai City with the China (Shanghai) Pilot Free Trade Zone Lingang Special Area Administration require, among other things, that Lingang pay liquidated damages in the event that (a) it does not make a total investment (including the costs of construction, fixtures, equipment and grant fees) of at least RMB 450.0 million ($63,400) or (b) within six years after the land use right is obtained, the Company does not (i) generate a minimum specified amount of annual sales of products manufactured on the granted land or (ii) pay to the PRC at least RMB 157.6 million ($22,000) in annual total taxes (including value-added taxes, corporate income tax, personal income taxes, urban maintenance and construction taxes, education surcharges, stamp taxes, and vehicle and shipping taxes) as a result of operations in connection with the granted land.

As of June 30, 2023 and December 31, 2022, the Company had paid in total $60,961 and $35,376, respectively for its Lingang-related investments.

In the normal course of business, the Company is subject to contingencies, including legal proceedings and environmental claims arising out of the normal course of businesses that relate to a wide range of matters, including among others, contracts breach liability. The Company records accruals for such contingencies based upon the assessment of the probability of occurrence and, where determinable, an estimate of the liability. Management may consider many factors in making these assessments including past history, scientific evidence and the specifics of each matter. Some of these contingencies involve claims that are subject to substantial uncertainties and un-estimable damages.

The Company's management has evaluated all such proceedings and claims that existed as of June 30, 2023 or December 31, 2022. In the opinion of management, no provision for liability nor disclosure was required as of June 30, 2023 related to any claim against the Company because: (a) there is not a reasonable possibility that a loss exceeding amounts already recognized (if any) may be incurred with respect to such claim; (b) a reasonably possible loss or range of loss cannot be estimated; or (c) such estimate is immaterial.

As of June 30, 2023, the Company had no outstanding legal proceedings.

NOTE 21 – SEGMENT INFORMATION

The Company is engaged in the development, manufacture and sale of single-wafer wet cleaning equipment, which have been organized as one reporting segment as the equipment has substantially similar nature and economic characteristics. The Company's principal operating decision maker, ACM's Chief Executive Officer, receives and reviews the results of the operations for all major type of equipment as a whole when making decisions about allocating resources and assessing performance of the Company.

For geographical reporting, revenue by geographic location is determined by the location of customers' facilities to which products were shipped. Long-lived assets consist primarily of property, plant and equipment, other long-term assets, and right-of-use assets and are attributed to the geographic location in which they are located.

The balance of selected long-lived assets by geography as of June 30, 2023 and December 31, 2022 are presented in the following table:

	June 30, 2023	December 31, 2022
Long-lived assets by geography:		
Mainland China	$ 164,540	$ 140,481
South Korea	12,721	3,830
United States	1,239	10
Total	**$ 178,500**	**$ 144,321**

NOTE 22 – STATUTORY SURPLUS RESERVE

In accordance with the PRC's Foreign Enterprise Law, ACM Shanghai, ACM Lingang, and ACM Wuxi are required to make appropriation to reserve funds, comprising the statutory surplus reserve and discretionary surplus reserve, based on after-tax net income in accordance with generally accepted accounting principles of PRC ("PRC GAAP").

Appropriations to the statutory surplus reserve are required to be at least 10% of the after-tax net income determined in accordance with PRC GAAP until the reserve is equal to 50% of the entities' registered capital. The amount is calculated annually at the end of each calendar year. The balances of statutory reserve funds was $16,881 as of both June 30, 2023 and December 31, 2022, and is presented as statutory reserve on the Company's condensed consolidated balance sheets.

NOTE 23 SUBSEQUENT EVENTS

Auditor Resignation

As previously disclosed, on July 21, 2023, the Company was informed by Armanino LLP ("Armanino"), the Company's current independent registered public accounting firm, that Armanino will resign as the Company's independent auditor effective as of the earlier of (a) the date the Company engages a new independent registered public accounting firm or (b) the filing of the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2023.

Armanino advised the Company that its decision to resign was due to Armanino's decision to exit from the practice of providing financial statement audit services to all public companies. Armanino is not required to and did not seek the Company's consent to its decision to resign as the Company's independent registered public accounting firm. As a result, neither the Company's Board of Directors nor the Company's Audit Committee participated in Armanino's decision to resign.

In light of Armanino's determination, the Audit Committee of the Company's Board of Directors has initiated a process to select and appoint a new accounting firm to serve as the Company's independent registered public accountant commencing with the audit of the Company's financial statements for the fiscal year ending December 31, 2023.

Line of Credit

As previously disclosed, on July 25, 2023, the Company entered into a RMB Working Capital Loan Contract (the "Loan Contract") with China CITIC Bank Co., Ltd. ("China CITIC Bank"). The Loan Contract provides for a RMB 200 million (approximately $28 million based on currency exchange rates as of July 25, 2023) loan credit facility, which term expires on December 21, 2025 (the "Maturity Date").

Principal outstanding under the Loan Contract bears interest at a rate equal to (a) the latest one-year loan market quotation rate of the National Interbank Funding Center plus (b) 105 basis points, if the withdrawal date is on or prior to January 24, 2024. If the withdrawal date is after January 24, 2024, China CITIC Bank has the right to adjust the interest rate under the Loan Contract in accordance with China CITIC Bank's relevant interest rate policy at the time. The specific adjustment method of the interest rate shall be set forth in writing signed by us and China CITIC Bank.

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

You should read the following discussion of our financial condition and results of operations together with our condensed consolidated financial statements and the related notes and other financial information included elsewhere in this report and our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, or our Annual Report. The following discussion contains forward-looking statements that reflect our plans, estimates, and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to these differences include those discussed in Part I, Item 1A. "Risk Factors" in our Annual Report, as well as those discussed below and elsewhere in this report, particularly in the section titled "Item 1A – Risk Factors" in Part II below.

ACM Research, Inc., or ACM Research, is a Delaware corporation founded in California in 1998 to supply capital equipment developed for the global semiconductor industry. Since 2005, ACM Research has conducted its business operations principally through its subsidiary ACM Research (Shanghai), Inc., or ACM Shanghai, a limited liability corporation formed by ACM Research in the People's Republic of China, or the PRC, in 2005. Unless the context requires otherwise, references in this report to "our company," "our," "us," "we" and similar terms refer to ACM Research, Inc. and its subsidiaries, including ACM Shanghai, collectively.

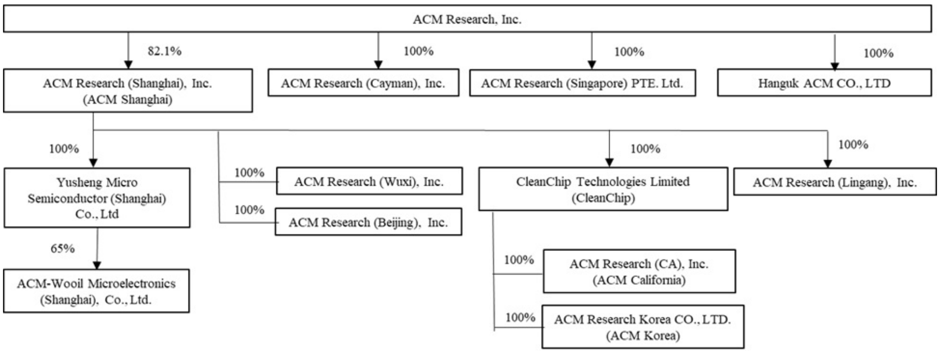
Our principal corporate office is located in Fremont, California. We conduct a substantial majority of our product development, manufacturing, support and services in the PRC through ACM Shanghai. We perform, through a subsidiary of ACM Shanghai, additional product development and subsystem production in South Korea, and we conduct, through ACM Research, sales and marketing activities focused on sales of ACM Shanghai products in North America, Europe and certain regions in Asia outside mainland China.

ACM Research is not a PRC operating company, and we do not conduct our operations in the PRC through the use of a variable interest entity, or VIE, or any other structure designed for the purpose of avoiding PRC legal restrictions on direct foreign investments in PRC-based companies. ACM Research has a direct ownership interest in ACM Shanghai as the result of its holding 82.1% of the outstanding shares of ACM Shanghai. Stockholders of ACM Research may never directly own equity interests in ACM Shanghai. We do not believe that our corporate structure or any other matters relating to our business operations require that we obtain any permissions or approvals from the China Securities Regulatory Commission, the Cyberspace Administration of China, or any other PRC central government authority in order to continue to list shares of Class A common stock of ACM Research on the Nasdaq Global Select Market. This determination was based on the facts aforementioned and the PRC Company Law, PRC Securities Law, cybersecurity regulations and other relevant laws, regulations and regulatory requirements in the PRC currently in effect. However, if this determination proves to be incorrect, then it could have a material adverse effect on ACM Research. See "Item IA. Risk Factors—Risks Related to International Aspects of Our Business—If any PRC central government authority were to determine that existing PRC laws or regulations require that ACM Shanghai obtain the authority's permission or approval to continue the listing of ACM Research's Class A common stock in the United States or if those existing PRC laws and regulations, or interpretations thereof, were to change to require such permission or approval, or if we inadvertently conclude that permissions or approvals are not required, ACM Shanghai may be unable to obtain the required permission or approval or may only be able to obtain such permission or approval on terms and conditions that impose material new restrictions and limitations on operation of ACM Shanghai, either of which could have a material adverse effect on our business, financial condition, results of operations, reputation and prospects and on the trading price of ACM Research Class A common stock, which could decline in value or become worthless" in our Annual Report.

The business of ACM Shanghai is subject to complex laws and regulations in the PRC that can change quickly with little or no advance notice. To date, beyond the COVID-19-related restrictions in 2022, we have not experienced such intervention or influence by PRC central government authorities or a change in those authorities' rules and regulations that have had a material impact on ACM Shanghai or ACM Research.

In addition, in the ordinary course of business, ACM Shanghai is required to obtain certain operating permits and licenses necessary for it to operate in the PRC, including business licenses, certifications relating to quality management standards, import and export-related qualifications from customs, as well as environmental and construction permits, licenses and approvals relating to construction projects. We believe ACM Shanghai has all such required permits and licenses. However, from time to time the PRC government issues new regulations, which may require additional actions on the part of ACM Shanghai to comply. If ACM Shanghai does not, or is unable to, obtain any such additional permits or licenses, ACM Shanghai may be subjected to restrictions and penalties imposed by the relevant PRC regulatory authorities, and it could have a material adverse effect on our business, financial condition, results of operations, reputation and prospects and on the trading price of ACM Research Class A common stock, which could decline in value or become worthless.

The following chart depicts our corporate organization as of June 30, 2023:



A detailed description of how cash is transferred through our organization is set forth under "Note 2 – Summary of Significant Accounting Policies – Cash and Cash Equivalents" to the Consolidated Financial Statements of this report.

The U.S. Holding Foreign Companies Accountable Act, or the HFCA Act, requires that the Public Company Accounting Oversight Board, or the PCAOB, determine whether it is unable to inspect or investigate completely registered public accounting firms located in a non-U.S. jurisdiction because of a position taken by one or more authorities in any non-U.S. jurisdiction. BDO China Shu Lun Pan Certified Public Accountants LLP, or BDO China, had been our independent registered public accounting firm in recent years, including for the year ended December 31, 2021. On June 22, 2021, the U.S. Senate passed the Accelerating Holding Foreign Companies Accountable Act, which was enacted on December 29, 2022 under the Consolidated Appropriations Act, 2023, as further described below. On December 16, 2021, the PCAOB reported its determination that it was unable to inspect or investigate completely registered public accounting firms headquartered in the PRC and Hong Kong, including BDO China, because of positions taken by PRC authorities in those jurisdictions. On March 30, 2022, based on this determination, ACM Research was transferred to the SEC's "Conclusive list of issuers identified under the HFCA." See "Item 1A. Risk Factors—Risks Related to International Aspects of Our Business—We could be adversely affected if we are unable to comply with recent and proposed legislation and regulations regarding improved access to audit and other information and audit inspections of accounting firms, including registered public accounting firms, such as our prior audit firm, operating in the PRC" in our Annual Report for more information. Under current regulations, if ACM Research were to be included on this list for two consecutive years due to our independent auditor being located in a jurisdiction that does not allow for PCAOB inspections, the SEC would prohibit trading in our securities and this ultimately could cause our securities to be delisted in the U.S., and their value may significantly decline or become worthless.

On December 15, 2022, the PCAOB announced that it was able to secure complete access to inspect and investigate PCAOB-registered public accounting firms headquartered in the PRC and Hong Kong in 2022 and vacated its previous December 16, 2021 determination to the contrary. However, whether the PCAOB will continue to be able to satisfactorily conduct inspections of PCAOB-registered public accounting firms headquartered in the PRC and Hong Kong is subject to uncertainty and depends on a number of factors out of our, and our auditor's, control. PRC authorities will need to ensure that the PCAOB continues to have full access for inspections and investigations in 2023 and beyond. Each year, the PCAOB will determine whether it can inspect and investigate completely audit firms in the PRC and Hong Kong, among other jurisdictions. If the PRC authorities do not allow the PCAOB complete access for inspections and investigations for two consecutive years, the SEC would prohibit trading in the securities of issuers engaging those audit firms, as required under the HFCA Act. Further, on December 29, 2022, the Consolidated Appropriations Act, 2023, was signed into law by U.S. President Biden, which, among other things, amended the HFCA Act to reduce the number of consecutive non-inspection years that would trigger the trading prohibition under the HFCA Act from three years to two years (originally such threshold under the HFCA Act was three consecutive years), and so that any foreign jurisdiction could be the reason why the PCAOB does not have complete access to inspect or investigate a company's public accounting firm (originally the HFCA Act only applied if the PCAOB's ability to inspect or investigate was due to a position taken by an authority in the jurisdiction where the relevant public accounting firm was located).

On June 30, 2022, and June 15, 2023, stockholders of ACM Research ratified the appointment of Armanino LLP as our independent auditor for the years ended December 31, 2022 and 2023, respectively. Armanino LLP is neither headquartered in the PRC or Hong Kong nor was it subject to the determinations announced by the PCAOB on December 16, 2021, which determinations were vacated by the PCAOB on December 15, 2022, and we do not believe ACM Research will appear on the "Conclusive list of issuers identified under the HFCAA" for a second time.

On July 21, 2023, we were informed by Armanino, that Armanino will resign as our independent auditor effective as of the earlier of (a) the date we engage a new independent registered public accounting firm or (b) the filing of our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2023. In light of Armanino's determination, the Audit Committee of our Board of Directors has initiated a process to select and appoint a new accounting firm to serve as our independent registered public accountant commencing with the audit of our financial statements for the fiscal year ending December 31, 2023 (note 23).

In addition to the matters discussed above, we are also subject to a number of legal and operational risks associated with our corporate structure, including as the result of a substantial portion of our operations being conducted in the PRC. Consequences of any of those risks could result in a material adverse change in our operations or cause the value of ACM Research Class A common stock to significantly decline in value or become worthless. Please carefully read the information included in "Item 1A. Risk Factors" in our Annual Report, in particular the risk factors addressing the following issues:

- If any PRC central government authority were to determine that existing PRC laws or regulations require that ACM Shanghai obtain the authority's permission or approval to continue the listing of ACM Research's Class A common stock in the United States or if those existing PRC laws and regulations, or interpretations thereof, were to change to require such permission or approval, or if we inadvertently conclude that such permissions or approvals are not required, ACM Shanghai may be unable to obtain the required permission or approval or may only be able to obtain such permission or approval on terms and conditions that impose material new restrictions and limitations on operation of ACM Shanghai, either of which could have a material adverse effect on our business, financial condition, results of operations, reputation and prospects and on the trading price of ACM Research Class A common stock, which could decline in value or become worthless.

- PRC central government authorities may intervene in, or influence, ACM Shanghai's PRC-based operations at any time, and those authorities' rules and regulations in the PRC can change quickly with little or no advance notice.

- The PRC central government may determine to exert additional control over offerings conducted overseas or foreign investment in PRC-based issuers, which could result in a material change in operations of ACM Shanghai and cause significant declines in the value of ACM Research Class A common stock, or make them worthless.

Recent statements and regulatory actions by PRC central government authorities with respect to the use of VIEs and to data security and anti-monopoly concerns have not affected our ability to conduct our business operations in China. For further information, see "Item 1A. Risk Factors —Risks Related to International Aspects of Our Business" in our Annual Report for more information.

Overview

We supply advanced, innovative capital equipment developed for the global semiconductor industry. Fabricators of advanced integrated circuits, or chips, can use our wet-cleaning and other front-end processing tools in numerous steps to improve product yield, even at increasingly advanced process nodes. We have designed these tools for use in fabricating foundry, logic and memory chips, including dynamic random-access memory, or DRAM, and 3D NAND-flash memory chips. We also develop, manufacture and sell a range of advanced packaging tools to wafer assembly and packaging customers.

Revenue from wet-cleaning and other front-end processing tools totaled $122.4 million, or 84.7% of total revenue, for the three months ended June 30, 2023, as compared to $79.6 million, or 76.2% of total revenue, for the same period in 2022. Revenue from wet-cleaning and other front-end processing tools totaled $178.8 million, or 81.7% of total revenue, for the six months ended June 30, 2023, as compared to $111.3 million, or 75.9% of total revenue, for the same period in 2022. Selling prices for our wet-cleaning and other front-end processing tools range from $0.7 million to more than $5 million.

Our customers for wet-cleaning and other front-end processing tools have included Huali Microelectronics Corporation, The Huahong Group, SMIC, Shanghai SK Hynix Inc., YMTC and ChangXin Memory Technologies.

Revenue from advanced packaging, other back-end processing tools, services and spares totaled $22.2 million, or 15.3% of total revenue, for the three months ended June 30, 2023, as compared to $24.8 million, or 23.8% of total revenue, for the same period in 2022. Revenue from advanced packaging, other back-end processing tools, services and spares totaled $40.0 million, or 18.3% of total revenue, for the six months ended June 30, 2023, as compared to $35.3 million, or 24.1% of total revenue, for the same period in 2022. Selling prices for these tools range from $0.5 million to $4 million. Our customers for advanced packaging, and other processing tools have included: Jiangyin Changdian Advanced Packaging Co. Ltd., a PRC-based wafer bumping packaging house that is a subsidiary of JCET Group Co., Ltd.; Nantong Tongfu Microelectronics Co., Ltd., a PRC-based chip assembly and testing company that is a subsidiary of Nantong Fujitsu Microelectronics Co., Ltd.; Nepes Co., Ltd., a semiconductor packaging company based in South Korea; and Wafer Works Corporation, a PRC-based wafer supplier.

We estimate, based on third-party reports and on customer and other information, that our current product portfolio addresses approximately $8 billion of the global wafer equipment market. By product line, we estimate an approximately $3.7 billion market opportunity is addressed by our wafer cleaning equipment, $2.9 billion by our furnace equipment, $730 million by our electro-chemical plating or ECP equipment, and more than $650 million by our stress-free polishing, advanced packaging, wafer processing, and other processing equipment. By major equipment segment, Gartner estimates a 2021 worldwide semiconductor wafer fab equipment, or WFE, market size of $88.1 billion, of which $4.1 billion is for wafer cleaning equipment (auto wet stations, single-wafer spray processors, batch spray processors, and other clean process equipment), $3.4 billion is for furnace equipment (tube CVD, oxidation/diffusion furnace, and batch atomic layer deposition), and $764 million is for electro-chemical deposition, or ECD. Based on Gartner's estimates, total available global market for these equipment segments increased by 30.1% from $6.4 billion in 2020 to $8.3 billion in 2021, and is expected to increase by 8.3% to $8.9 billion in 2022. These segments are part of the worldwide semiconductor WFE market, which based on Gartner's estimates increased by 10.7% from $88.1 billion in 2021 to $97.5 billion in 2022, and is also expected to increase by 10.7% to $97.5 billion in 2023.

Since 2009 we have delivered more than 410 wet-cleaning and other front-end processing tools, more than 310 of which have been accepted by customers and thereby generated revenue to us. The balance of the delivered tools are awaiting customer acceptance should contractual conditions be met. To date, a substantial majority of our sales of single-wafer wet-cleaning equipment for front-end manufacturing have been to customers located in Asia, and we anticipate that a substantial majority of our revenue from these products will continue to come from customers located in this region for the foreseeable future.

We have begun to add to our efforts to further address customers in North America, Western Europe and Southeast Asia by expanding our direct sales and services teams and increasing our global marketing activities. Our U.S. operation includes sales, marketing and services personnel to expand and support major new customer initiatives for the products of ACM Shanghai to additional regions beyond mainland China. As of June 30, 2023, we have delivered one tool for evaluation to a U.S. lab of a global semiconductor capital equipment vendor, and two tools to the U.S. facility of a major U.S. semiconductor manufacturer. Both of these evaluations are supported by our U.S. and global services team.

Recent Developments

COVID–19

The worldwide COVID-19 health pandemic and related government and private sector responsive actions have adversely affected the economies and financial markets of many countries and specifically have negatively impacted the Company's business operations, including in the PRC and the United States. The continuation of the COVID-19 pandemic or related after-effects could continue to result in economic uncertainty and global economic policies that could reduce demand for the Company's products and its customers' chips and have a material adverse impact on the Company's business, operating results and financial condition (note 2). For an explanation of some of the risks we potentially face, please read carefully the information provided under "Item 1A. Risk Factors—Risks Related to the COVID–19 Pandemic," in our Annual Report.

Our corporate headquarters are located in Fremont, California in the San Francisco Bay Area and are the subject of a number of state and county public health directives and orders. These actions have not negatively impacted our business to date, however, because of the limited number of employees at our headquarters and the nature of the work they generally perform. To date we have not experienced absenteeism of management or other key U.S. employees, other than certain of our executive officers being delayed in traveling between the PRC, our California office, and other global locations, and a significant number of ACM Shanghai employees missing work in late 2022 and early 2023 for one or several weeks due to COVID-19 related illness following relaxation of the PRC's zero-COVID policies in December 2022.

Our global supply chain includes components sourced from the PRC, Japan, Taiwan, the United States and Europe. While, to date, we have not experienced material issues with our supply chain beyond the logistics related to the Shanghai facilities of ACM Shanghai, supply chain constraints have intensified due to COVID-19, contributing to global shortages in the supply of semiconductors and other materials, and in some cases the pricing of materials used in the production of our own tools. As with our customers, we continue to be in close contact with our key suppliers to help ensure we are able to identify any potential supply issues that may arise.

ACM Shanghai Dividend

On June 27, 2023, ACM Shanghai held its 2023 Annual Stockholder Meeting in Shanghai, China. During this meeting, the stockholders of ACM Shanghai approved and adopted various resolutions, including a proposed dividend to be paid to the stockholders of ACM Shanghai (including ACM Research). The amount of the planned dividend is RMB 0.372 per share for an aggregate total of approximately RMB 161.28 million ($22.2 million). The dividend accrual of $4.0 million (note 10) reflects the amount payable to the minority shareholders of ACM Shanghai.

Oregon Lease

Effective April 1, 2023, we entered an agreement to lease a 10,683 square foot facility in Hillsborough, Oregon beginning April 1, 2023 until August 31, 2030. The facility is being used for our U.S.-based sales and services team to support customer activities in the region.

PRC Government Research and Development Funding

ACM Shanghai has received seven special government grants. The first grant, which was awarded in 2008, relates to the development and commercialization of 65nm to 45nm stress-free polishing technology. The second grant was awarded in 2009 to fund interest expense on short-term borrowings. The third grant was made in 2014 and relates to the development of electrocopper-plating technology. The fourth grant was made in June 2018 and related to development of polytetrafluoroethylene. The fifth grant was made in 2020, and relates to the development of Tahoe single bench cleaning technologies. As of December 31, 2021, the fourth and fifth grants had been fully utilized. The sixth grant was made in 2020, and relates to the development of other cleaning technologies. The seventh grant was made in 2021, and relates to the development of the R&D and production center in the Lin-gang Special Area of Shanghai. These governmental authorities provide significant funding, although ACM Shanghai and ACM Lingang is also required to invest certain amounts in the projects.

The governmental grants contain certain operating conditions, and we are required to go through a government due diligence process once the project is complete. The grants therefore are recorded as long-term liabilities upon receipt, although we are not required to return any funds ACM Shanghai receives. Grant amounts are recognized in our statements of operations and comprehensive income as follows:

- Government subsidies relating to current expenses are recorded as reductions of those expenses in the periods in which the current expenses are recorded. For the three months ended June 30, 2023 and 2022, related government subsidies recognized as reductions of relevant expenses in the consolidated statements of operations and comprehensive income (loss) were $0.3 million and $54,000, respectively. For the six months ended June 30, 2023 and 2022, related government subsidies recognized as reductions of relevant expenses in the consolidated statements of operations and comprehensive income (loss) were $0.8 million and $78,000, respectively.
- Government subsidies related to depreciable assets are credited to income over the useful lives of the related assets for which the grant was received. For the three months ended June 30, 2023 and 2022, related government subsidies recognized as other income in the consolidated statements of operations and comprehensive income (loss) were $205,000 and $76,000, respectively. For the six months ended June 30, 2023 and 2022, related government subsidies recognized as other income in the consolidated statements of operations and comprehensive income (loss) were $249,000 and $155,000, respectively.

Unearned government subsidies received are deferred for recognition and recorded as other long-term liabilities (note 13) in the balance sheet until the criteria for such recognition are satisfied.

Net Income Attributable to Non-Controlling Interests

In 2019 ACM Shanghai sold a total number of shares representing 8.3% of its outstanding ACM Shanghai shares, after which ACM Research held the remaining 91.7% of ACM Shanghai's outstanding shares. In 2021 ACM Shanghai sold a total number shares representing an additional 10% of its outstanding ACM Shanghai shares in its STAR IPO, after which ACM Research held the remaining 82.5% of ACM Shanghai's outstanding shares. In May 2023, ACM's ownership declined to 82.1% due to the exercise of 2,150,309 stock options related to ACM Shanghai shares (note 18). As a result, we reflect the portion of our net income allocable to the minority holders of ACM Shanghai shares as net income attributable to non-controlling interests.

Critical Accounting Policies and Estimates

There were no significant changes in our critical accounting policies or significant judgments or estimates during the three months ended June 30, 2023 to augment the critical accounting estimates disclosed under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report, other than those described in the notes to the condensed consolidated financial statements included in this report. For information regarding the impact of recently adopted accounting standards, refer to Note 2 to the condensed consolidated financial statements included in this report.

Recent Accounting Pronouncements

A discussion of recent accounting pronouncements is included in our Annual Report and is updated in Note 2 to the condensed consolidated financial statements included in this report.

Results of Operations

The following table sets forth our results of operations for the periods presented, as percentages of revenue.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Revenue	100.0 %	100.0 %	100.0 %	100.0 %
Cost of revenue	52.5	57.7	50.4	56.4
Gross margin	47.5	42.3	49.6	43.6
Operating expenses:				
Sales and marketing	7.9	7.3	9.5	9.8
Research and development	13.9	10.9	15.6	19.6
General and administrative	4.6	4.9	6.6	6.8
Total operating expenses, net	26.4	23.1	31.7	36.2
Income from operations	21.1	19.2	17.9	7.4
Interest income, net	1.2	1.8	1.3	2.3
Realized gain from sale of trading securities	2.7	0.0	3.6	0.0
Unrealized loss on trading securities	(1.7)	(0.4)	(1.4)	(2.9)
Other benefit, net	2.6	2.4	1.1	1.9
Equity income in net income of affiliates	2.7	0.5	1.8	0.3
Income before income taxes	28.6	23.5	24.3	9.0
Income tax expense	(5.3)	(7.4)	(4.8)	(2.5)
Net income	23.3	16.1	19.5	6.5
Less: Net income attributable to non-controlling interests	4.7	4.3	3.9	1.9
Net income attributable to ACM Research, Inc.	18.6 %	11.8 %	15.6 %	4.6 %

Comparison of Three Months Ended June 30, 2023 and 2022

Revenue

	Three Months Ended June 30,		% Change	Absolute Change
	2023	**2022**	**2023 v 2022**	**2023 v 2022**
	(in thousands)			
Revenue	$ 144,577	$ 104,395	38.5 %	$ 40,182
Single wafer cleaning, Tahoe and semi-critical cleaning equipment	$ 112,528	$ 72,583	55.0 %	$ 39,945
ECP (front-end and packaging), furnace and other technologies	19,117	20,500	(6.7) %	(1,383)
Advanced packaging (excluding ECP), services & spares	12,932	11,312	14.3 %	1,620
Total Revenue by Product Category	**$ 144,577**	**$ 104,395**	**38.5 %**	$ 40,182
Wet-cleaning and other front-end processing tools	$ 122,415	$ 79,553	53.9 %	$ 42,862
Advanced packaging, other processing tools, services and spares	22,162	24,842	(10.8) %	(2,680)
Total Revenue Front and Back-End	**$ 144,577**	**$ 104,395**	**38.5 %**	**$ 40,182**

The increase in revenue for three months ended June 30, 2023 as compared to the same period in 2022 was driven by higher sales of single wafer cleaning, Tahoe and semi-critical cleaning equipment, and higher sales of Advance packaging (excluding ECP), and services and spares, which were partly offset by a decline in ECP (front-end and packaging), furnace and other technologies. Contribution to revenue from customer acceptances increased versus the prior-year period due to the acceptance of several tools that resulted in the recognition of revenue for multiple tools that had been previously delivered to certain customers. The increased demand from PRC-based customers is due in part to their longer term commitment to increase production capacity to achieve a greater share of the global semiconductor market.

Cost of Revenue and Gross Margin

	Three Months Ended June 30,		% Change	Absolute Change
	2023	**2022**	**2023 v 2022**	**2023 v 2022**
	(in thousands)			
Cost of revenue	$ 75,938	$ 60,238	26.1 %	$ 15,700
Gross profit	68,639	44,157	55.4 %	24,482
Gross margin	47.5 %	42.3 %	5.2 %	518 bps

Cost of revenue and gross profit increased in the three months ended June 30, 2023 as compared to the corresponding period in 2022 due to the increased sales volume, and an increase in gross margin. The increased gross margin versus the prior-year period was due to a favorable revenue mix between tools within our product categories, improved gross margins for specific product lines, and a favorable impact from fluctuations in the RMB to U.S. dollar exchange rate, which was partly offset by an inventory reserve of $2.9 million (note 5) recorded during the period.

Gross margin may vary from period to period, primarily related to the level of utilization and the timing and mix of revenue. We expect gross margin to be between 40.0% and 45.0% for the foreseeable future, with direct manufacturing costs approximating 50.0% to 55.0% of revenue and overhead costs totaling 5.0% of revenue.

Operating Expenses

	Three Months Ended June 30,		% Change	Absolute Change
	2023	2022	2023 v 2022	2023 v 2022
	(in thousands)			
Sales and marketing expense	$ 11,439	$ 7,664	49.3 %	$ 3,775
Research and development expense	20,064	11,367	76.5 %	8,697
General and administrative expense	6,706	5,091	31.7 %	1,615
Total operating expenses	$ 38,209	$ 24,122	58.4 %	$ 14,087

Sales and marketing expense increased in the three months ended June 30, 2023 as compared to the corresponding period in 2022, due an increase of $3.0 million in costs for personnel, commissions, outside services, travel & entertainment and professional services, and $0.8 million higher costs for supplies and spare parts for promotional tools.

Sales and marketing expense consists primarily of:

- compensation of personnel associated with pre- and after-sale services and support and other sales and marketing activities, including stock-based compensation;
- sales commissions paid to independent sales representatives;
- fees paid to sales consultants;
- cost of trade shows;
- costs of tools built for promotional purposes for current or potential new customers;
- travel and entertainment; and
- allocated overhead for rent and utilities.

We expect that, for the foreseeable future, sales and marketing expenses will increase in dollars, as we incur additional costs associated with growing our customer base in mainland China and regions outside of mainland China.

Research and development expense increased in the three months ended June 30, 2023 as compared to the corresponding period in 2022, reflecting an increase of $7.3 million in costs of components, costs of tools built for product development purposes, and costs of other research and development supplies, and an increase of $2.7 million for personnel, stock-based compensation, and travel and entertainment costs to support product development, offset by a decrease of $1.3 million in other R&D-related costs.

Research and development expense represented 13.9% and 10.9% of our revenue in the three months ended June 30, 2023 and 2022, respectively. Without reduction by grant amounts received from PRC governmental authorities (see '–PRC Government Research and Development Funding''), gross research and development expense totaled $20.3 million, or 14.1% of total revenue, in the three months ended June 30, 2023 as compared to $11.4 million, or 10.9% of revenue, in the corresponding period in 2022.

Research and development expense relates to the development of new products and processes and encompasses our research, development and customer support activities. Research and development expense consists primarily of:

- compensation of personnel associated with our research and development activities, including stock based compensation;
- costs of components and other research and development supplies;
- costs of tools built for product development purposes;
- travel expense associated with the research of technical requirements for product development purposes and testing of concepts under consideration;
- amortization of costs of software used for research and development purposes; and
- allocated overhead for rent and utilities.

We expect that, for the foreseeable future, research and development expenses will increase in dollars, as we incur additional costs to expand our product portfolio to address additional production steps and expand our research and development team to new regions.

General and administrative expense increased in the three months ended June 30, 2023 by $1.6 million as compared to the corresponding period in 2022, primarily reflecting a $1.7 million increase in personnel, professional services and other general and administrative-related cost, and a $0.2 million increase in bad debt reserves, offset by $0.3 million decrease in stock-based compensation.

General and administrative expense consists primarily of:

- compensation of executive, accounting and finance, human resources, information technology, and other administrative personnel, including stock-based compensation;
- professional fees, including accounting and corporate legal and defense fees;
- other corporate expenses including insurance;
- bad debt reserve; and
- allocated overhead for rent and utilities.

We expect that, for the foreseeable future, general and administrative expenses will increase in dollars, as we incur additional costs associated with growing our business, operating ACM Research, as a public company in the United States and operating ACM Shanghai as a public company in the PRC.

Interest income, net, Other Income, net

	Three Months Ended June 30,			
	2023	**2022**	**% Change 2023 v 2022**	**Absolute Change 2023 v 2022**
	(in thousands)			
Interest Income	$ 2,346	$ 2,144	9.4 %	$ 202
Interest Expense	(649)	(306)	112.1 %	(343)
Interest Income, net	$ 1,697	$ 1,838	-7.7 %	$ (141)
Other income, net	$ 3,724	$ 2,505	48.7 %	$ 1,219

Interest income (expense), net consists of interest earned on our cash and cash equivalents, restricted cash accounts, and short term and long term time deposits, offset by interest expense incurred from outstanding short-term and long-term borrowings. Interest income (expense), net decreased in the three months ended June 30, 2023 as compared to the corresponding period in 2022, due to higher interest income related to higher interest rates applied to a lower balance of cash and cash equivalents, restricted cash accounts, and short-term and long-term time deposits, more than offset by higher interest expense related to a higher balance of total borrowings.

Other income (expense), net primarily reflects (a) losses recognized from the impact of exchange rates on our foreign currency-denominated working-capital transactions which were $2.7 million and $2.4 million for the three months ended June 30, 2023 and 2022, respectively, (b) depreciation of assets acquired with government subsidies, as described under “—PRC Government Research and Development Funding” above, and other factors.

Realized gain and unrealized loss from trading securities, and equity income in net income of affiliates.

	Three Months Ended June 30,			
	2023	2022	% Change 2023 v 2022	Absolute Change 2023 v 2022
	(in thousands)			
Realized gain from sale of trading securities	$ 3,919	$ -	100.0 %	$ 3,919
Unrealized loss on trading securities	$ (2,455)	$ (423)	480.4 %	$ (2,032)
Equity income in net income of affiliates	$ 3,920	$ 472	730.5 %	$ 3,448

We recorded a realized gain from sale of trading securities of $3.9 million for the three months ended June 30, 2023 due to a sale of ACM Shanghai's indirect investment in SMIC shares on the STAR Market as is described in Note 15 to the condensed consolidated financial statements included in this report.

We recorded an unrealized loss on trading securities of $2.5 million for the three months ended June 30, 2023 as compared to an unrealized loss of $0.4 million for the same period in 2022, based on a change in market value of ACM Shanghai's indirect investments in certain publicly traded securities on China's stock markets as described in Note 15 to the condensed consolidated financial statements included in this report.

Equity income in net income of affiliates increased by $3.9 million for the three months ended June 30, 2023 due to an increase of net income from investments in affiliates (Note 14).

Income Tax Expense

The following presents components of income tax expense for the indicated periods:

	Three Months Ended June 30,	
	2023	2022
	(in thousands)	
Total income tax expense	$ 7,638	$ 7,679

We recognized a tax expense of $7.6 million for the three months ended June 30, 2023 as compared to a tax expense of $7.7 million for the prior year period. The tax expense for the three months ended June 30, 2023 primarily resulted from the tax effect of a decrease in our effective income tax rate applied to an operating profit for the period. The decrease in our effective income tax rate for the three months ended June 30, 2023 compared to the same period of the prior year was primarily due to an increased benefit from the specified deduction to the GILTI inclusion as a result of reduced net operating loss utilization which partially limited the specified deduction in the prior year, and reduced GILTI inclusion related to the amount of capitalized R&D expenses relative to pre-tax income. The tax benefit in the three months ended June 30, 2022 was primarily due to a higher effective tax rate applied to a pre-tax net income for the period.

Our effective tax rate differs from statutory rates of 21% for U.S. federal income tax purposes and 15% to 25% for Chinese income tax purposes due to the treatment of stock-based compensation including the impact from stock option exercises and non-US research expenses. Our PRC subsidiaries, ACM Shanghai, ACM Wuxi, Inc., ACM Lingang, and ACM Beijing are liable for PRC corporate income taxes at the rates of 15%, 25%, 25% and 25%, respectively. Pursuant to the Corporate Income Tax Law of the PRC, our PRC subsidiaries generally would be liable for PRC corporate income taxes at a rate of 25%. According to Guoshuihan 2009 No. 203, an entity certified as an "advanced and new technology enterprise" is entitled to a preferential income tax rate of 15%. ACM Shanghai was certified as an "advanced and new technology enterprise" in 2012 and again in 2016, 2018, and 2021 with an effective period of three years. In 2021, ACM Shanghai was certified as an eligible integrated circuit production enterprise and was entitled to a preferential income tax rate of 12.5% from January 1, 2020 to December 31, 2022.

Under the change in Section 174 made by the Tax Cuts and Jobs Act of 2017 (the "TCJA") which became effective on January 1, 2022, the Company is required to capitalize, and subsequently amortize R&D expenses over fifteen years for research activities conducted outside of the U.S. The capitalization of overseas R&D expenses results in a significant increase in the Company's global intangible low-taxed income inclusion. Congress is considering legislation, but legislation has not passed, that would repeal defer the capitalization requirement to later years.

We file income tax returns in the United States and state and foreign jurisdictions. Those federal, state and foreign income tax returns are under the statute of limitations subject to tax examinations for 2001 through 2022. To the extent we have tax attribute carryforwards, the tax years in which the attribute was generated may still be adjusted upon examination by the Internal Revenue Service or state or foreign tax authorities to the extent utilized in a future period.

Net Income Attributable to Non-Controlling Interests

	Three Months Ended June 30,		% Change	Absolute Change
	2023	**2022**	**2023 v 2022**	**2023 v 2022**
	(in thousands)			
Net income attributable to non-controlling interests	$ 6,772	$ 4,512	50.1 %	$ 2,260

ACM Research owns 82.1% of ACM Shanghai's (note 1) outstanding shares which is reflected in our consolidated financial statements (note 2). We reflect the portion of net income allocable to the minority holders of ACM Shanghai shares as net income attributable to non-controlling interests.

Foreign currency translation adjustment

	Three Months Ended June 30,		% Change	Absolute Change
	2023	**2022**	**2023 v 2022**	**2023 v 2022**
	(in thousands)			
Foreign currency translation adjustment	$ (35,269)	$ (40,372)	(12.6)%	$ 5,103

We recorded a foreign currency translation adjustment of $(35.3) million for the three months ended June 30, 2023, as compared to $(40.4) million for the same period in 2022, based on the net effect of RMB to dollar exchange rate fluctuations for the period on the converted value of ACM Shanghai's RMB-denominated balances to U.S. dollar equivalents. The amounts for both years was especially large due to a significant weakening of the RMB versus the U.S. dollar during the periods on a large balance of RMB-demonominated assets.

Comprehensive income (loss) attributable to non-controlling interests

	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	% Change 2023 v 2022	Absolute Change 2023 v 2022
	(in thousands)			
Comprehensive income (loss) attributable to non-controlling interests	$ 652	$ (2,248)	(129.0)%	$ 2,900

Comprehensive income attributable to non-controlling interests increased by $2.9 million for the three months ended June 30, 2023 due to change in net income generated from the non-controlling interests as impacted from foreign exchange rate fluctuations.

Comparison of Six Months Ended June 30, 2023 and 2022

Revenue

	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022	% Change 2023 v 2022	Absolute Change 2023 v 2022
	(in thousands)			
Revenue	$ 218,833	$ 146,581	49.3 %	$ 72,252
Single wafer cleaning, Tahoe and semi-critical cleaning equipment	$ 149,142	$ 98,616	51.2 %	$ 50,526
ECP (front-end and packaging), furnace and other technologies	45,715	32,748	39.6 %	12,967
Advanced packaging (excluding ECP), services & spares	23,976	15,217	57.6 %	8,759
Total Revenue by Product Category	**$ 218,833**	**$ 146,581**	**49.3 %**	$ 72,252
Wet-cleaning and other front-end processing tools	$ 178,797	$ 111,254	60.7 %	$ 67,543
Advanced packaging, other processing tools, services and spares	40,036	35,327	13.3 %	4,709
Total Revenue Front and Back-End	**$ 218,833**	**$ 146,581**	**49.3 %**	**$ 72,252**

The increase in revenue for six months ended June 30, 2023 as compared to the same period in 2022 was driven by higher sales of single wafer cleaning, Tahoe and semi-critical cleaning equipment, increased contribution from ECP (front-end and packaging), furnace and other technologies, and higher sales of Advance packaging (excluding ECP), and services and spares. Contribution to revenue from customer acceptances increased versus the prior-year period due to the acceptance of several tools that resulted in the recognition of revenue for multiple tools that had been previously delivered to certain customers. The increased demand from PRC-based customers is due in part to their longer term commitment to increase production capacity to achieve a greater share of the global semiconductor market.

Our Shanghai operations were adversely impacted by a continuation of effects related to the cessation of China's zero-COVID policies in late 2022 that extended into early 2023, and the continued impact from a recent increase in restrictions implemented by the U.S. Department of Commerce and other countries for PRC-based semiconductor producers (note 2).

Cost of Revenue and Gross Margin

	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022	% Change 2023 v 2022	Absolute Change 2023 v 2022
	(in thousands)			
Cost of revenue	$ 110,208	$ 82,738	33.2 %	$ 27,470
Gross profit	108,625	63,843	70.1 %	44,782
Gross margin	49.6 %	43.6 %	6.0 %	608 bps

Cost of revenue and gross profit increased in the six months ended June 30, 2023 as compared to the corresponding period in 2022 due to the increased sales volume, and an increase in gross margin. The increased gross margin versus the prior-year period was primarily due to a favorable revenue mix between tools within our product categories, improved gross margins for specific product lines, and a favorable impact from fluctuations in the RMB to U.S. dollar exchange rate, which was partly offset by an inventory reserve of $3.2 million (note 5) recorded during the period.

Gross margin may vary from period to period, primarily related to the level of utilization and the timing and mix of revenue. We expect gross margin to be between 40.0% and 45.0% for the foreseeable future, with direct manufacturing costs approximating 50.0% to 55.0% of revenue and overhead costs totaling 5.0% of revenue.

Operating Expenses

	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022	% Change 2023 v 2022	Absolute Change 2023 v 2022
	(in thousands)			
Sales and marketing expense	$ 20,776	$ 14,361	44.7 %	$ 6,415
Research and development expense	34,093	28,713	18.7 %	5,380
General and administrative expense	14,464	10,040	44.1 %	4,424
Total operating expenses	$ 69,333	$ 53,114	30.5 %	$ 16,219

Sales and marketing expense increased in the six months ended June 30, 2023 as compared to the corresponding period in 2022, reflecting an increase of an increase of $3.7 million due to increased costs for personnel, commissions, outside services, travel & entertainment and other costs, and $2.7 million in higher costs for supplies and spare parts for promotional tools.

We expect that, for the foreseeable future, sales and marketing expenses will increase in dollars, as we incur additional costs associated with growing our customer base in mainland China and regions outside of mainland China.

Research and development expense increased in the six months ended June 30, 2023 as compared to the corresponding period in 2022, reflecting an increase of $5.2 million for personnel, stock-based compensation, and travel and entertainment costs to support product development, an increase of $1.1 million in costs of components, costs of tools built for product development purposes, and a net decrease of $0.1 million in outside services and other R&D-related costs.

Research and development expense represented 15.6% and 19.6% of our revenue in the six months ended June 30, 2023 and 2022, respectively. Without reduction by grant amounts received from PRC governmental authorities (see '–PRC Government Research and Development Funding''), gross research and development expense totaled $34.1 million, or

15.9% of total revenue, in the six months ended June 30, 2023 as compared to $28.7 million, or 19.6% of revenue, in the corresponding period in 2022.

We expect that, for the foreseeable future, research and development expenses will increase in dollars, as we incur additional costs to expand our product portfolio to address additional production steps and expand our research and development team to new regions.

General and administrative expense increased in the three months ended June 30, 2023 as compared to the corresponding period in 2022, primarily reflecting a $2.3 million increase in personnel costs, a $1.9 million increase in professional services, a $1.1 million increase in other general and administrative related cost, and a $0.5 million increase in bad debt reserves.

We expect that, for the foreseeable future, general and administrative expenses will increase in dollars, as we incur additional costs associated with growing our business, ACM Research operating a public company in the United States and ACM Shanghai operating as a public company in the PRC.

Interest income (expense), net, Other Income (expense), net

	Six Months Ended June 30,		% Change	Absolute Change
	2023	2022	2023 v 2022	2023 v 2022
	(in thousands)			
Interest Income	$ 4,131	$ 3,949	4.6 %	$ 182
Interest Expense	(1,344)	(567)	137.0 %	(777)
Interest Income, net	$ 2,787	$ 3,382	-17.6 %	$ (595)
Other income, net	$ 2,306	$ 2,742	-15.9 %	$ (436)

Interest income, net consists of interest earned on our cash and equivalents, restricted cash accounts, and short term and long term time deposits, offset by interest expense incurred from outstanding short-term and long-term borrowings. Interest income, net decreased in the six months ended June 30, 2023 as compared to the corresponding period in 2022, due to higher interest income related to higher interest rates applied to a lower balance of cash and equivalents, restricted cash accounts, and short term and long term time deposits, offset by higher interest expense related to a higher balance of total borrowings.

Other income, net primarily reflects (a) gains (losses) due to the impact of exchange rates on our foreign currency-denominated working-capital transactions which were $1.7 million gains and ($0.6 million) losses for the six months ended June 30, 2023 and 2022, respectively and (b) depreciation of assets acquired with government subsidies, as described under "—PRC Government Research and Development Funding" above, and other factors.

Realized gain and unrealized loss from trading securities, and equity income in net income of affiliates.

	Six Months Ended June 30,		% Change	Absolute Change
	2023	2022	2023 v 2022	2023 v 2022
	(in thousands)			
Realized gain from sale of trading securities	$ 7,913	$ -	100.0 %	$ 7,913
Unrealized loss on trading securities	$ (3,109)	$ (4,281)	(27.4)%	$ 1,172
Equity income in net income of affiliates	$ 3,888	$ 401	869.6 %	$ 3,487

We recorded a realized gain from sale of trading securities of $7.9 million for the six months ended June 30, 2023 due to a sale of ACM Shanghai's indirect investment in SMIC shares on the STAR Market as is described in note 15 to the condensed consolidated financial statements included in this report.

We recorded an unrealized loss on trading securities of $3.1 million for the six months ended June 30, 2023 as compared to an unrealized loss of $4.3 million for the same period in 2022, based on a change in market value of ACM Shanghai's indirect investments in certain publicly traded securities on China's stock markets as described in note 15 to the condensed consolidated financial statements included in this report.

Equity income in net income of affiliates increased by $3.5 million for the three months ended June 30, 2023 due to an increase of net income from investments in affiliates (note 14).

Income Tax Expense

The following presents components of income tax expense for the indicated periods:

	Six Months Ended June 30,	
	2023	2022
	(in thousands)	
Total income tax expense	$ 10,517	$ 3,668

We recognized a tax expense of $10.5 million for the six months ended June 30, 2023 as compared to a tax expense of $3.7 million for the prior year period. The tax expense for the six months ended June 30, 2023 primarily resulted from the tax effect of a decrease in our effective income tax rate applied to an operating profit for the period. The decrease in our effective income tax rate for the six months ended June 30, 2023 compared to the same period of the prior year was primarily due to an decreased benefit from the specified deduction to the GILTI inclusion as a result of reduced net operating loss utilization which partially limited the specified deduction in the prior year, and reduced GILTI inclusion related to the amount of capitalized R&D expenses relative to pre-tax income. The tax expense in the six months ended June 30, 2022 was primarily due to a higher effective tax rate applied to a pre-tax net income for the period.

Net Income Attributable to Non-Controlling Interests

	Six Months Ended June 30,		% Change	Absolute Change
	2023	2022	2023 v 2022	2023 v 2022
	(in thousands)			
Net income attributable to non-controlling interests	$ 8,590	$ 2,855	200.9 %	$ 5,735

ACM Research owns 82.1% of the outstanding shares of ACM Shanghai (note 1) which is reflected in our consolidated financial statements (note 2). We reflect the portion of net income allocable to the minority holders of ACM Shanghai shares as net income attributable to non-controlling interests.

Foreign currency translation adjustment

	Six Months Ended June 30,		% Change	Absolute Change
	2023	2022	2023 v 2022	2023 v 2022
	(in thousands)			
Foreign currency translation adjustment	$ (25,846)	$ (37,918)	(31.8)%	$ 12,072

We recorded a foreign currency translation adjustment of $(25.7) million for the six months ended June 30, 2023, as compared to $(37.9) million for the same period in 2022, based on the net effect of RMB to dollar exchange rate fluctuations for the period on the converted value of ACM Shanghai's RMB-denominated balances to U.S. dollar equivalents. The amounts for both years was especially large due to a significant weakening of the RMB versus the U.S. dollar during the periods on a large balance of RMB-demonominated assets.

Comprehensive income (loss) attributable to non-controlling interests

	Six Months Ended June 30,		% Change	Absolute Change
	2023	2022	2023 v 2022	2023 v 2022
	(in thousands)			
Comprehensive income (loss) attributable to non-controlling interests	$ 4,114	$ (3,321)	(223.9)%	$ 7,435

Comprehensive income attributable to non-controlling interests increased by $7.4 million for the six months ended June 30, 2023 due to change in net income generated from the non-controlling interests as impacted from foreign exchange rate fluctuations.

Liquidity and Capital Resources

During the first six months of 2023, we funded our technology development and operations principally through our beginning global cash balances, including the cash balances at ACM Shanghai, and borrowings by ACM Shanghai from local financial institutions. Cash and cash equivalents, restricted cash, short-term time deposits and long-term time deposits were $376.1 million at June 30, 2023, compared to $420.9 million at December 31, 2022. The $44.8 million decrease was primarily driven by $24.4 million of cash used in operations, $1.6 million, excluding net cash increase for time deposits, used in investing activities, $3.4 million net cash provided by financing activities, a $16.3 million net decline from the effect of exchange rate on cash, cash equivalents and restricted cash, and a $6.1 million decline from the effect of exchange rate on time deposits.

	June 30, 2023	December 31, 2022
	(In thousands)	
Cash and cash equivalents, restricted cash, and time deposits:		
Cash and cash equivalents and restricted cash	$ 258,002	$ 248,451
Short-term time deposits	6,000	70,492
Long-term time deposits	112,104	101,956
Total	**$ 376,106**	**$ 420,899**

Our future working capital needs beyond the next twelve months will depend on many factors, including the rate of our business and revenue growth, the payment schedules of our customers, the timing and magnitude of our capital expenditures, and the timing of investment in our research and development as well as sales and marketing. We believe our existing cash and cash equivalents and short-term and long-term time deposits, our cash flow from operating activities, and bank borrowings by ACM Shanghai will be sufficient to meet our anticipated cash needs within our longer term planning horizon.

ACM Shanghai has historically participated in certain PRC government-sponsored grant and subsidy programs, as described under "—PRC Government Research and Development Funding" and "—Contractual Obligations" and we expect that ACM Shanghai will continue to take advantage of these programs when they are available and fit with our business strategy. ACM Shanghai generally applies for these grants and subsidies through the applicable PRC government agency's defined processes. Periodically, the public relations department researches the availability of these grants and subsidies through the PRC government agencies with whom ACM Shanghai files business surveys and taxes. Management of ACM Shanghai then assesses which grants and subsidies for which ACM Shanghai may be eligible and submits the relevant application. The decision to award the grant to ACM Shanghai is made by the relevant PRC government agencies based on suitability and the merits of the application. Neither ACM Research, nor ACM Shanghai or any of our other subsidiaries, has any direct relationship with any PRC government agency, and our anticipated cash needs for the next twelve months neither anticipate, nor require, receipt of any PRC government grants or subsidies.

To the extent our cash and cash equivalents, cash flow from operating activities and short-term bank borrowings are insufficient to fund our future activities in accordance with our strategic plan, we may determine to raise additional funds through public or private debt or equity financings or additional bank credit arrangements. We also may need to raise additional funds in the event we determine in the future to effect one or more acquisitions of businesses, technologies and products. If additional funding is necessary or desirable, we may not be able to obtain bank credit arrangements or to affect an equity or debt financing on terms acceptable to us or at all.

Restrictions under PRC laws and regulations as well as restrictions under ACM Shanghai's bank loan agreements, may significantly restrict ACM Shanghai's ability to transfer a portion of ACM Shanghai's net assets to ACM Research, other subsidiaries of ACM Research and to holders of ACM Research Class A common stock. See "Item 1A. Risk Factor–Regulatory Risks-The PRC's currency exchange control and government restrictions on investment repatriation may impact our ability to transfer funds outside of the PRC, which could materially and adversely affect our ability to grow, make investments or acquisitions that could benefit our business, otherwise fund and conduct our business, or pay dividends on our common stock" in our Annual Report.

For the six months ended June 30, 2023 and 2022, with the exception of sales and services-related transfer-pricing payments in the ordinary course of business, no transfers, dividends, or distributions have been made between ACM Research, and its subsidiaries, including ACM Shanghai, or to holders of ACM Research Class A common stock.

Our cash and cash equivalents at June 30, 2023 were held for working capital purposes and other potential investments. ACM Shanghai, our only direct PRC subsidiary, is, however, subject to PRC restrictions on distributions to equity holders. The use of proceeds raised by the STAR Market IPO, without further approvals, are limited to specific usage. Our accounts receivable balance fluctuates from period to period, which affects our cash flow from operating activities. Fluctuations vary depending on cash collections, client mix, and the timing of shipment and acceptance of our tools.

We have never declared or paid cash dividends on our capital stock. We intend to retain all available funds and any future earnings to support the operation of and to finance the growth and development of our business and do not anticipate paying any cash dividends in the foreseeable future.

Cash Flow Used in Operating Activities. Net cash used in operating activities of $24.4 million during the six months ended June 30, 2023 consisted of:

	Six Months Ended June 30,	
	2023	2022
	(In thousands)	
Net income	$ 42,560	$ 9,305
Depreciation and amortization	3,955	2,555
Loss on disposals of property, plant and equipment	(1)	—
Realized gain on trading securities	(7,913)	—
Equity income in net income of affiliates	(3,888)	(401)
Unrealized loss on trading securities	3,109	4,281
Bad debt expense	496	—
Deferred income taxes	(4,711)	1,642
Stock-based compensation	4,085	3,343
Net changes in operating assets and liabilities:	(61,932)	(82,022)
Net cash flow used in operating activities	$ (24,240)	$ (61,297)

Significant changes in operating asset and liability accounts included the following uses of cash: an increase of inventories of $77.9 million (Note 5), and an increase of accounts receivable of $17.8 million (Note 4). The uses of cash are offset by the following significant sources of cash: an increase in advances from customers of $41.7 million (Note 3), and an increase in accounts payable of $5.1 million. As described under "PRC Government Research and Development Funding," ACM Shanghai has received research and development grants from local and central PRC governmental authorities. ACM Shanghai received $25,000 payments related to such grants in the first six months of 2023, as compared to no cash receipts in the same period of 2022.

Cash Flow Used in Investing Activities. Net cash used in investing activities, excluding net cash increase for time deposits, for the six-months ended June 30, 2023 was $1.6 million, primarily consisting of $22.9 million purchase of property and intangible assets and $1.5 million purchase of long-term investment, offset by $17.7 million in proceeds from selling trading securities (Note 15), and $5.1 million in dividends received from investments in affiliates (note 14).

Cash Flow Provided by Financing Activities. Net cash provided by financing activities for the six months ended June 30, 2023 was $3.4 million, primarily consisting of $1.1 million net repayment of long-term borrowings, offset by $4.5 million in proceeds from the exercise of stock options related to shares of ACM Shanghai and stock options related to shares of ACM Research, Inc. (note 18).

ACM Shanghai, together with its subsidiaries, has short-term and long-term borrowings with five banks, as follows:

Lender	Agreement Date	Maturity Date	Annual Interest Rate	Maximum Borrowing Amount(1)	Amount Outstanding at June 30, 2023
				(in thousands)	
China Everbright Bank	July 2021	December 2023	3.00%~3.60%	RMB150,000	RMB150,000
				$ 20,760	$ 20,760
Bank of Communications	August 2022	September 2023	3.50%~3.60%	RMB100,000	RMB100,000
				$ 13,840	$ 13,840
Bank of China	August 2022	August 2023	3.15%	RMB40,000	RMB40,000
				$ 5,536	$ 5,536
China Merchants Bank	October 2021	September 2023	3.50%	RMB100,000	RMB100,000
				$ 13,840	$ 13,840
China Merchants Bank	November 2020	Repayable by installments and the last installments repayable in November 2030	3.95%	RMB128,500	RMB103,428
				$ 17,784	$ 13,914
Bank of China	June 2021	Repayable by installments and the last installments repayable in June 2024	2.60%	RMB10,000	RMB8,500
				$ 1,384	$ 1,107
Bank of China	September, 2021	Repayable by installments and the last installments repayable in September 2024	2.60%	RMB35,000	RMB29,750
				$ 4,844	$ 4,117
				$ 77,988	$ 73,114

(1) Converted from RMB to dollars as of June 30, 2023. The loan from China Merchants Bank is secured by a pledge of the property of ACM Lingang and guaranteed by ACM Shanghai, as described above under “—Contractual Obligations.”

Effect of exchange rate changes on cash, cash equivalents and restricted cash. The effect of exchange rate cash, and cash equivalents was ($16.1 million) during the first six months of 2023. The impact of fluctuations of the RMB to U.S. dollar currency exchange rate on a significant balance of these items held in RMB-denominated accounts (Note 2) contributed to the change.

Contractual Obligations

Grant Contract for State-owned Construction Land Use Right in Shanghai City

In 2020 ACM Shanghai, through its wholly-owned subsidiary ACM Lingang, entered into a Grant Contract for State-owned Construction Land Use Right in Shanghai City (Category of R&D Headquarters and Industrial Projects), or the Grant Agreement, with the China (Shanghai) Pilot Free Trade Zone Lin-gang Special Area Administration, or the Grantor. ACM Lingang obtained rights to use approximately 43,000 square meters (10.6 acres) of land in the Lingang Heavy Equipment Industrial Zone of Lin-gang Special Area of China (Shanghai) Pilot Free Trade Zone, or the Land Use Right, for a period of fifty years, commencing on the date of delivery of the land in July 2020, which we refer to as the Delivery Date.

In exchange for its land use rights, ACM Lingang paid aggregate grant fees of RMB 61.7 million ($9.5 million), or the Grant Fees, and a performance deposit of RMB 12.3 million ($1.9 million), which is equal to 20% of the aggregate grant fees, to secure its achievement of the following performance milestones:

- the start of construction within 6 months after the Delivery Date (60% of the performance deposit), or Construction Start Milestone;
- the completion of construction within 30 months after the Delivery Date (20% of the performance deposit), or Construction Completion Milestone; and
- the start of production within 42 months after the Delivery Date (20% of the performance deposit), or Production Start Milestone.

Upon satisfaction of a milestone, the portion of the performance deposit attributable to that milestone will be repayable to ACM Lingang within ten business days. If the achievement of any of the above milestones is delayed or abandoned, ACM Lingang may be subject to additional penalties and may lose its rights to both the use of the granted land and any partially completed facilities on that land.

The status of the performance milestones for the period ended June 30, 2023 is as follows:

- ACM Lingang achieved the Construction Start Milestone and 60% of the performance deposit was refunded to ACM Shanghai in 2020.
- The Construction Completion Milestone is now required to be met by January 9, 2024. The Construction Completion Milestone was originally required to be met prior to January 9, 2023, but due to COVID-related delays, ACM filed multiple requests for extensions, the latest of which was granted on July 7, 2023. We cannot guarantee that ACM Lingang will meet the extended deadline or be refunded this 20% portion of the performance deposit.

  Contractual penalties in the case of a delay of Construction Completion Milestone:

  - If ACM Lingang fails to complete the construction pursuant to the date agreed under the Grant Agreement or any extended completion date approved by the Grantor, ACM Lingang shall pay 50% of the deposit for timely completion of construction as liquidated damages;
  - If ACM Lingang delays the completion for more than six months beyond the date agreed under the Grant Agreement, or beyond any extended completion date approved by the Grantor, it shall pay the total deposit for timely completion of construction as liquidated damages.
  - If the delay is more than one year, the Grantor is entitled to terminate the Grant Agreement and take back the Land Use Right. In such case, the Grantor shall refund the Grant Fees for the remaining land use term after deducting the deposit agreed under the Grant Agreement and refund the deposit for timely commencement of production and relevant bank interests in full to ACM Lingang.

- The Production Start Milestone is now required to be met by January 9, 2025. The Production Start Milestone was originally required to be met prior to January 9, 2024, but due to COVID-related delays, ACM filed multiple requests for extensions, the latest of which was granted on July 7, 2023. We cannot guarantee that ACM Lingang will meet any extended deadline or be refunded this 20% portion of the performance deposit.

Contractual penalties in the case of a delay of Production Start Milestone:

- If ACM Lingang fails to commence production pursuant to the date agreed under the Grant Agreement or any extended commencement date approved by the Grantor, ACM Lingang shall pay the total deposit for timely commencement of production as liquidated damages;
- If ACM Lingang fails to commence production pursuant to the extended commencement of production date, the Grantor is entitled to terminate the Grant Agreement and take back the Land Use Right. In such case, the Grantor shall refund the Grant Fees for the remaining land use term after deducting the deposit agreed under the Grant Agreement to ACM Lingang.

In addition to the milestones, covenants in the Grant Agreement require that, among other things, ACM Lingang will be required to pay liquidated damages in the event that:

(a) it does not make a total investment (including the costs of construction, fixtures, equipment and grant fees) of at least RMB 450.0 million ($63.4 million). ACM Lingang shall pay the liquidated damages equal to the same proportion of the Grant Fees as the proportion of the actual shortfall amount of investment in the total agreed investment amount or the investment intensity.

(b) within six years after the Delivery Date, or prior to July 9, 2026, it does not (i) generate a minimum specified amount of annual sales of products manufactured on the granted land or (ii) pay to the PRC at least RMB 157.6 million ($22.2 million) in annual total taxes (including value-added taxes, corporate income tax, personal income taxes, urban maintenance and construction taxes, education surcharges, stamp taxes, and vehicle and shipping taxes) as a result of operations in connection with the granted land.

If the total tax revenue of the project fails to reach but is no less than 80% of the standard agreed under the Grant Agreement, ACM Lingang shall pay 20% of the actual shortfall amount of the tax revenue as liquidated damages. If the total tax revenue of the project fails to reach 80% of the standard agreed under the Grant Agreement within 1 month after the agreed date of reaching target production, the Grantor is entitled to terminate this Contract, take back the Land Use Right, and shall refund the Grant Fees for the remaining Land Use Term to ACM Lingang.

If the Grant Agreement is terminated because of breach of any terms above, the Grantor shall take back the buildings, fixtures and auxiliary facilities on the land area and provide ACM Lingang with corresponding compensation according to the residual value of the buildings, fixtures and auxiliary facilities when they are taken back. The total cumulative investment of land, buildings and construction in progress related to ACM Lingang amounted to $95.4 million and $102.9 million at June 30, 2023 and December 31, 2022, respectively.

How We Evaluate Our Operations

We present information below with respect to four measures of financial performance:

- We define “shipments” of tools to include (a) a “repeat” shipment to a customer of a type of tool that the customer has previously accepted, for which we recognize revenue upon delivery, and (b) a “first-time” shipment of a “first tool” to a customer on an approval basis, for which we may recognize revenue in the future if contractual conditions are met, or if a purchase order is received.
- We define “adjusted EBITDA” as net income excluding interest expense (net), income tax benefit (expense), depreciation and amortization, unrealized (gain) loss on trading securities, and stock-based compensation. We define adjusted EBITDA to also exclude restructuring costs, although we have not incurred any such costs to date.
- We define “free cash flow” as net cash provided by operating activities less purchases of property and equipment (net of proceeds from disposals).
- We define “adjusted operating income (loss)” as our income (loss) from operations excluding stock-based compensation.

These financial measures are not based on any standardized methodologies prescribed by accounting principles generally accepted in the United States, or GAAP, and are not necessarily comparable to similarly titled measures presented by other companies.

We have presented shipments, adjusted EBITDA, free cash flow and adjusted operating income (loss) because they are key measures used by our management and board of directors to understand and evaluate our operating performance, to establish budgets and to develop operational goals for managing our business. We believe that these financial measures help identify underlying trends in our business that could otherwise be masked by the effect of the expenses that we exclude. In particular, we believe that the exclusion of the expenses eliminated in calculating adjusted EBITDA and adjusted operating income (loss) can provide useful measures for period-to-period comparisons of our core operating performance and that the exclusion of property and equipment purchases from operating cash flow can provide a usual means to gauge our capability to generate cash. Accordingly, we believe that these financial measures provide useful information to investors and others in understanding and evaluating our operating results, enhancing the overall understanding of our past performance and future prospects, and allowing for greater transparency with respect to key financial metrics used by our management in its financial and operational decision-making.

Shipments, adjusted EBITDA, free cash flow and adjusted operating income (loss) are not prepared in accordance with GAAP, and should not be considered in isolation of, or as an alternative to, measures prepared in accordance with GAAP.

Shipments

We consider shipments a key operating metric as it reflects the total value of products delivered to customers and prospective customers by our productive assets.

Shipments consist of two components:

- a shipment to a customer of a type of tool that the customer has previously accepted, for which we recognize revenue when the tool is delivered; and
- a shipment to a customer of a type of tool that the customer is receiving and evaluating for the first time, in each case a "first tool," for which we may recognize revenue at a later date, subject to the customer's acceptance of the tool upon the tool's satisfaction of applicable contractual requirements or subject to the costumer's subsequent discretionary commitment to purchase the tool.

"First tool" shipments can be made to either an existing customer that has not previously accepted that specific type of tool in the past ─ for example, a delivery of a SAPS V tool to a customer that previously had received only SAPS II tools ─ or to a new customer that has never purchased any tool from us.

Shipments in the three and six months ended June 30, 2023 totaled $153.4 million and $242.6 million, as compared to $111.6 million and $178.6 million for the same periods in 2022. Repeat tool shipments in the three and six months ended June 30, 2023 totaled $61.4 million and $109.1 million, as compared to $80.1 million and $110.3 million for the same periods in 2022. First tool shipments in the three and six months ended June 30, 2023 totaled $92.0 million and 142.3 million, as compared to $44.9 million and $81.7 million for the same periods in 2022.

The dollar amount attributed to a "first tool" shipment is equal to the consideration we expect to receive if any and all contractual requirements are satisfied and the customer accepts the tool, or if the customer subsequently determines in its discretion to purchase the tool. There are a number of limitations related to the use of shipments in evaluating our business, including that customers have significant, or in some cases total, discretion in determining whether to accept or purchase our tools after evaluation and their decision not to accept or purchase delivered tools is likely to result in our inability to recognize revenue from the delivered tools. "First tool" shipments reflect the value of incremental new products under evaluation delivered to our customers or prospective customers for a given period and is used as an internal key metric to reflect future potential revenue opportunity. The cumulative cost of "first tool" shipments under evaluation at customers which have not been accepted by the customer is carried at cost and reflected in finished goods inventory (see Note 5 to the condensed consolidated financial statements included in this report). "First tool" shipments exclude deliveries to customers for which ACM does not have a basis to expect future revenue.

Adjusted EBITDA

There are a number of limitations related to the use of adjusted EBITDA rather than net income (loss), which is the nearest GAAP equivalent. Some of these limitations are:

- adjusted EBITDA excludes depreciation and amortization and, although these are non-cash expenses, the assets being depreciated or amortized may have to be replaced in the future;

- we exclude stock-based compensation expense from adjusted EBITDA and adjusted operating income (loss), although (a) it has been, and will continue to be for the foreseeable future, a significant recurring expense for our business and an important part of our compensation strategy and (b) if we did not pay out a portion of our compensation in the form of stock-based compensation, the cash salary expense included in operating expenses would be higher, which would affect our cash position;
- the expenses and other items that we exclude in our calculation of adjusted EBITDA may differ from the expenses and other items, if any, that other companies may exclude from adjusted EBITDA when they report their operating results;
- adjusted EBITDA does not reflect changes in, or cash requirements for, working capital needs;
- adjusted EBITDA does not reflect interest expense, or the requirements necessary to service interest or principal payments on debt;
- adjusted EBITDA does not reflect income tax expense (benefit) or the cash requirements to pay taxes;
- adjusted EBITDA does not reflect historical cash expenditures or future requirements for capital expenditures or contractual commitments;
- although depreciation and amortization charges are non-cash charges, the assets being depreciated and amortized will often have to be replaced in the future, and adjusted EBITDA does not reflect any cash requirements for such replacements; and
- adjusted EBITDA includes expense reductions and non-operating other income attributable to PRC governmental grants, which may mask the effect of underlying developments in net income, including trends in current expenses and interest expense, and free cash flow includes the PRC governmental grants, the amount and timing of which can be difficult to predict and are outside our control.

The following table reconciles net income, the most directly comparable GAAP financial measure, to adjusted EBITDA:

	Six Months Ended June 30,			
	2023	2022	% Change 2023 v 2022	Absolute Change 2023 v 2022
	(in thousands)			
Adjusted EBITDA Data:				
Net income	$ 42,560	$ 9,305	357.4 %	$ 33,255
Interest (income), net	(2,787)	(3,382)	-17.6 %	595
Income tax expense	10,517	3,668	186.7 %	6,849
Depreciation and amortization	3,955	2,555	54.8 %	1,400
Bad debt expense	496	—	100.0 %	496
Stock based compensation	4,085	3,343	22.2 %	742
Unrealized loss on trading securities	3,109	4,281	-27.4 %	(1,172)
Adjusted EBITDA	$ 61,935	$ 19,770	213.3 %	$ 42,165

The $42.2 million increase in adjusted EBITDA for the six months ended June 30, 2023 as compared to the same period in 2022 reflected a $33.3 million increase in net income, a $6.9 million impact from a change in income tax expense, a $1.4 million increase in depreciation and amortization, a $0.7 million increase in stock based compensation, a $0.6 million in interest income, net, and a $0.5 million increase in bad debt expense, partly offset by a $1.2 million decrease in unrealized loss on trading securities.

We do not exclude from adjusted EBITDA expense reductions and non-operating other income attributable to PRC governmental grants because we consider and incorporate the expected amounts and timing of those grants in incurring expenses and capital expenditures. If we did not receive the grants, our cash expenses therefore would be lower, and our cash position would not be affected, to the extent we have accurately anticipated the amounts of the grants. For additional information regarding our PRC grants, please see “—PRC Government Research and Development Funding.”

Free Cash Flow

The following table reconciles net cash provided by (used in) operating activities, the most directly comparable GAAP financial measure, to free cash flow:

	Six Months Ended June 30,			
	2023	2022	% Change 2023 v 2022	Absolute Change 2023 v 2022
	(in thousands)			
Free Cash Flow Data:				
Net cash used in operating activities	$ (24,240)	$ (61,297)	(60.5 %)	$ 37,057
Purchase of property and equipment	(21,633)	(5,256)	311.6 %	(16,377)
Purchase of trading securities	(1,453)	—	100.0 %	(1,453)
Free cash flow	$ (47,326)	$ (66,553)	(28.9 %)	$ 19,227

The $19.1 million increase in free cash flow for the six months ended June 30, 2023 as compared to the same period in 2022 reflected the factors driving net cash used in operating activities, an increase of purchases of property and equipment and intangible assets and trading securities. Consistent with our methodology for calculating adjusted EBITDA, we do not adjust free cash flow for the effects of PRC government subsidies, because we take those subsidies into account in incurring expenses and capital expenditures. We do not adjust free cash flow for the effects of time-deposits, which for our internal purposes are considered as largely similar to cash.

Adjusted Operating Income

Adjusted operating income excludes stock-based compensation from income from operations. Although stock-based compensation is an important aspect of the compensation of our employees and executives, determining the fair value of certain of the stock-based instruments we utilize involves a high degree of judgment and estimation and the expense recorded may bear little resemblance to the actual value realized upon the vesting or future exercise of the related stock-based awards. Furthermore, unlike cash compensation, the value of stock options, which is an element of our ongoing stock-based compensation expense, is determined using a complex formula that incorporates factors, such as market volatility, that are beyond our control. Management believes it is useful to exclude stock-based compensation in order to better understand the long-term performance of our core business and to facilitate comparison of our results to those of peer companies. The use of non-GAAP financial measures excluding stock-based compensation has limitations, however. If we did not pay out a portion of our compensation in the form of stock-based compensation, the cash salary expense included in operating expenses would be higher and our cash holdings would be less. The following tables reflect the exclusion of stock-based compensation, or SBC, from line items comprising income from operations:

	Six Months Ended June 30,					
	2023			2022		
	Actual (GAAP)	SBC	Adjusted (Non-GAAP)	Actual (GAAP)	SBC	Adjusted (Non-GAAP)
	(in thousands)					
Revenue	$ 218,833	$ -	$ 218,833	$ 146,581	$ -	$ 146,581
Cost of revenue	(110,208)	(250)	(109,958)	(82,738)	(253)	(82,485)
Gross profit	108,625	(250)	108,875	63,843	(253)	64,096
Operating expenses:						
Sales and marketing	(20,776)	(862)	(19,914)	(14,361)	(928)	(13,433)
Research and development	(34,093)	(1,410)	(32,683)	(28,713)	(1,067)	(27,646)
General and administrative	(14,464)	(1,563)	(12,901)	(10,040)	(1,095)	(8,945)
Income (loss) from operations	$ 39,292	$ (4,085)	$ 43,377	$ 10,729	$ (3,343)	$ 14,072

Adjusted operating income for the six months ended June 30, 2023 increased by $29.3 million, as compared with the same period in 2022, due to a $28.6 million increase in income from operations and a $0.7 million increase in stock-based compensation expense.

Item 3. Quantitative and Qualitative Disclosures About Market Risks

Our market risks and the ways we manage them are summarized in the section captioned “Part II, Item 7A. Quantitative and Qualitative Disclosures About Market Risk” in our Annual Report. There have been no material changes in the first three months of 2023 to our market risks or to our management of such risks.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our company’s disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934, or the Exchange Act, as of June 30, 2023. The evaluation included certain internal control areas in which we have made and are continuing to make changes to improve and enhance controls. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints, and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs. The effectiveness of the disclosure controls and procedures is also necessarily limited by the staff and other resources available to management and the geographic diversity of our company’s operations. As a result of the COVID-19 pandemic, in 2021, 2022 and 2023, we have faced additional challenges in operating and monitoring our disclosure controls and procedures as a result of employees working remotely and management travel being limited. In addition, we face potential heightened cybersecurity risks as our level of dependence on our IT networks and related systems increases, stemming from employees working remotely, and the number of malware campaigns and phishing attacks preying on the uncertainties surrounding the COVID-19 pandemic increases.

Based on that evaluation, and as a result of the material weaknesses in internal control over financial reporting described in our Annual Report, our Chief Executive Officer and Chief Financial Officer concluded that, as of June 30, 2023, our company’s disclosure controls and procedures were not effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Notwithstanding the material weaknesses in internal control over financial reporting described in our Annual Report, our management, including our Chief Executive Officer and Chief Financial Officer, believes that our consolidated financial statements included in this report present fairly, in all material respects, our financial position, results of operations and cash flows as of and for the periods presented, in conformity with GAAP.

Material Weaknesses in Internal Control Over Financial Reporting

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis.

As disclosed in our Annual Report, management identified the following material weaknesses during its assessment of internal controls over financial reporting as of December 31, 2022, and is in the process of remediating them as of June 30, 2023:

• Management did not design and maintain effective risk assessment procedures, and monitoring activities. These deficiencies were attributed to insufficient identification and assessment of risks impacting the design, implementation, and operating effectiveness of internal control over financial reporting, and insufficient evaluation and determination as to whether components of internal control were present and functioning.

• Management did not design and maintain effective information technology controls related to (a) user access controls to ensure appropriate segregation of duties and adequately restrict user and privileged access to financial applications, programs, and data to appropriate personnel, (b) computer operations controls to ensure that critical information is monitored, and data backups are authorized and monitored, (c) appropriate controls to evaluate automated controls, and (d) appropriate controls to validate the completeness and accuracy of key reports used within controls across substantially all financial statement areas.

Although these material weaknesses did not result in any material misstatement of our consolidated financial statements, there is a reasonable possibility that a material misstatement of our consolidated financial statements will not be prevented or detected on a timely basis. Accordingly, management has concluded that these control deficiencies constitute material weaknesses.

Remediation Efforts

We have begun the process of, and are focused on, designing and implementing effective internal control measures to improve our internal control over financial reporting and remediate the material weaknesses. Our internal control remediation efforts include the following:

• Continue engagement with an outside firm to assist management with (i) designing and maintaining effective risk assessment procedures and monitoring activities, (ii) reviewing our current processes, procedures, and systems and assessing the design of controls to identify opportunities to enhance the design of controls that would address relevant risks identified by management to assure the operating effectiveness of internal control over financial reporting, and (iii) enhancing and implementing protocols to retain sufficient documentary evidence of operating effectiveness of such controls.

• Continue to recruit qualified individuals for key positions within our accounting and other support functions that will further enhance internal control capabilities, allow for appropriate segregation of duties, and provide appropriate oversight and reviews.

• Complete the implementation of our new enterprise reporting software and other system integrations and establish effective general controls over these systems to ensure that our automated process level controls and information produced and maintained in our IT systems is relevant and reliable.

• Restrict and monitor user access controls to ensure appropriate segregation of duties and adequately restrict user and privileged access of applications, programs, and data to appropriate personnel, implement computer operations controls to ensure that critical information is monitored, and data backups are authorized and monitored, establish appropriate controls to evaluate automated controls, and design and monitor appropriate controls to validate the completeness and accuracy of key reports used within controls across substantially all financial statement areas.

We are committed to ensuring that our internal controls over financial reporting are designed and operating effectively. Management believes the planned remediation will improve the effectiveness of our internal control over financial reporting. While these planned actions are subject to ongoing management evaluation and will require validation and testing of the design and operating effectiveness of internal controls over a sustained period of financial reporting cycles, we are committed to the continuous improvement of our internal control over financial reporting and will continue to diligently review our internal control over financial reporting.

Changes in Internal Control over Financial Reporting and Remediation Efforts

There were no changes in our internal control over financial reporting during the six months ended June 30, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. We will continue to review and document our disclosure controls and procedures, including our internal control over financial reporting and may from time to time make changes to enhance their effectiveness and ensure that our systems evolve with our business.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

From time to time, we may become involved in other legal proceedings or may be subject to claims arising in the ordinary course of our business. Although the results of these proceedings and claims cannot be predicted with certainty, we currently believe that the final outcome of these ordinary course matters will not have a material adverse effect on our business, operating results, financial condition or cash flows. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Item 1A. Risk Factors

Except as set forth below, there were no material changes to the risk factors discussed in Item 1A. "Risk Factors" of Part I in our Annual Report. In addition to the other information set forth in this report, you should carefully consider those risk factors, which could materially affect our business, financial condition and future operating results. Those risk factors are not the only risks facing our company. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may have a material adverse effect on our business, financial condition and operating results.

Regulatory Risks

Our ability to sell our tools to customers in the PRC has been impacted, and will likely continue to be materially and adversely impacted, by export license requirements, other regulatory changes, or other actions taken by the U.S. or other governmental agencies.

ACM Shanghai utilizes certain items subject to export controls under the U.S. Export Administration Regulations (EAR) in manufacturing and supplying its products. The EAR applies to exports of commodities, software and technology from the United States, including for use in manufacturing products outside the United States, as well as to certain products manufactured outside the United States that incorporate, or are based on, designated U.S. content, software or technology. The Bureau of Industry and Security of the U.S. Department of Commerce (BIS), which administers the EAR, recently imposed, and may continue to impose, additional restrictions under the EAR on certain exports to the PRC, including restrictions targeting the semiconductor manufacturing industry in the PRC. Many of these restrictions were imposed through licensing requirements with a presumption of denial. These types of restrictions may impact the operations of ACM Shanghai.

As part of the new regulations, BIS imposed a series of restrictions on exports of designated products and exports for specified end uses and end users in connection with the supercomputer, artificial intelligence, integrated circuit (IC) and semiconductor manufacturing sectors in the PRC. These new restrictions have impacted the procurement by ACM Shanghai of certain items from the United States, and of certain items subject to U.S. export controls from outside the
United States, for use in manufacturing its products and, depending on the details of the final implementation of these new restrictions and associated licensing policies, will likely continue to limit to an undetermined extent ACM Shanghai's ability to supply its products to certain end users and for certain end uses in the PRC.

Alongside these new restrictions, BIS has also continued to designate additional PRC entities, many involved in the semiconductor manufacturing industry, on restricted party lists under the EAR, such as the Entity List and the Unverified List. These designations impose licensing requirements for the supply of products to such entities. In most cases, any items subject to the EAR, including foreign produced products with specified U.S. content, now require an export license from BIS before they can be supplied to the newly listed PRC entities, regardless of their export classification. In December 2020, SMIC, one of the largest chip manufacturers in the PRC and one of our key customers, was one of numerous entities added to the Entity List. Challenges faced by SMIC and its key suppliers as a result of the listing have indirectly impacted SMIC's demand for, and ACM Shanghai's ability to supply, ACM Shanghai products. More recently, in October 2022, YMTC, a leading PRC memory chip company and one of our key customers, was added to the Unverified List of the EAR alongside a number of other Chinese entities. The Unverified List identifies parties for whom BIS has been unable to confirm their bona fides (i.e., legitimacy and reliability about the end-use and end-user of items subject to the EAR). Entities listed on the Unverified List are ineligible to receive items subject to the EAR by means of a license exception if a U.S. export license is required. In December 2022, YMTC was moved from the Unverified List to the Entity List. Challenges faced by YMTC and its key suppliers as a result of the listing could indirectly impact YMTC's demand for, or ACM Shanghai's ability to supply, ACM Shanghai products.

Also in October 2022, BIS announced new rules that significantly expanded U.S. export controls as applied to advanced IC products, related manufacturing equipment and technology, and supercomputers, where the destination or ultimate end user is based in the PRC. In the case of semiconductor manufacturing equipment, the new rules require an export license for the export, re-export, or transfer to or within the PRC of additional types of semiconductor manufacturing equipment, items for use in manufacturing designated types of semiconductor manufacturing equipment (along with other items subject to the
EAR, for use in the development or production of ICs), and semiconductor manufacturing equipment for use at certain IC manufacturing and development facilities in the PRC. In most cases, license applications for these exports are reviewed under a presumption of denial. In addition, BIS imposed new restrictions by which U.S. persons anywhere in the world are effectively barred from engaging in certain activities related to the development and production of semiconductors at PRC fabrication facilities meeting specified criteria, even if no items subject to the EAR are involved.

ACM Shanghai has determined that several of its customers have PRC-based facilities that meet the restricted criteria, and
has also determined that several of its products, and/or components, may meet the parameters of export control classification numbers, or ECCNs, affected by the restrictions. Accordingly, depending on the details of the final implementation of these new restrictions and associated licensing policies, ACM may not be able to import, or may face substantial restrictions in importing, parts from the United States or parts subject to U.S. export controls from outside the United States to support tool shipments to such facilities, or to be embedded into tools defined by affected ECCNs. ACM and ACM Shanghai have implemented modifications to their existing business policies and practices in response to the new restrictions, including by imposing limitations on the activities of their U.S. persons and undertaking measures in connection with their supply chains more broadly to comply with the new regulations.

We believe that as a result of the new restrictions, several ACM Shanghai customers have significantly reduced production and related capital spending at facilities meeting the restricted advanced node capabilities. In addition, ACM Shanghai has experienced challenges as the companies in its supply chain adapt their policies to the new regulations. These factors had an adverse impact on ACM Shanghai's shipments and sales in the three months ended December 31, 2022 and the six months ended June 30, 2023. We anticipate these factors will continue to have an adverse impact on ACM Shanghai's shipments and sales in future periods.

We cannot be certain what additional actions the U.S. government may take with respect to PRC entities, or whether such actions will impact our relationships with our PRC-based customers. Additional actions could take the form of further revisions to the Entity List or Unverified List, new export restrictions, additional tariffs or other trade restrictions. It is also possible that other countries could adopt similar semiconductor-focused export controls to align with the October 2022 U.S. actions.

During the three and six months ended June 30, 2023, two prominent exporters of advanced semiconductor manufacturing equipment, the Netherlands and Japan, announced and began to implement plans to join the United States in imposing semiconductor-focused export controls.

On May 23, 2023, the Japanese government issued the final amendment to an ordinance implementing new export controls to require licensing for export of certain advanced semiconductor manufacturing equipment, effective as of July 23, 2023. The amendment expands the scope of export controls to prohibit (1) exporting 23 additional categories of items relating to semiconductor manufacturing and (2) providing technology relating to manufacturing, development or use of these categories of items, in both cases, without an advance license. While the expanded export controls apply to exports to any jurisdiction, exports to certain jurisdictions, such as the United States, are expected to be permitted by certain types of broad general licenses. However, it remains to be seen whether the Japanese government will authorize any exports of these items to the PRC by a limited general license or specific license, if at all.

Likewise, on June 30, 2023, the Government of the Netherlands published additional export control measures for advanced semiconductor manufacturing equipment. The Regulation on Advanced Semiconductor Manufacturing Equipment will enter into force on September 1, 2023. From that point on, the export of certain advanced semiconductor manufacturing equipment, as specified in the Annex to the Regulation, will be subject to a national export license authorization requirement by the Dutch Central Import and Export Service.

As a result of the new restrictions, the ability of ACM Shanghai to acquire such parts from Japan and the Netherlands to fulfill customer requirements, and the ability of ACM Shanghai's customers in the PRC to scale their production, could be further negatively impacted by these additional controls. The introduction of additional multilateral semiconductor-focused export controls could further negatively impact ACM Shanghai's supply arrangements. The United States reportedly also is considering additional export controls measures, which could be imposed on items, technologies, or software that are relevant to our business and future growth.

We are unable to predict the duration of the restrictions imposed by the U.S. government, Japan and the Netherlands or the
effects of any future governmental actions by the U.S., Japan, the Netherlands or other countries that may impact our relationships with our PRC-based customers, any of which could have a long-term adverse effect on our business, operating results and financial condition.

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

During the six months ended June 30, 2023, ACM Research issued, pursuant to the exercise of stock options at a per share exercise price of $0.50 per share, an aggregate of 153,660 shares of Class A common stock that were not registered under the Securities Act of 1933, as amended. We believe the offer and sale of those shares were exempt from registration under the Securities Act of 1933, as amended, by virtue of Section 4(a)(2) thereof (or Regulation D promulgated thereunder) because they did not involve a public offering. The recipients of the shares acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were recorded with respect to the shares. The recipients of the shares were accredited investors under Rule 501 of Regulation D.

Sale Date	Exercised Shares (Net)
January 10, 2023	25,975
March 10, 2023	26,420
March 16, 2023	37,500
May 10, 2023	26,265
June 1, 2023	37,500
Total	153,660

Item 3. Default Upon Senior Securities

None

Item 4. Mine Safety Disclosures

None

Item 5. Other Information

On May 12, 2023, Fuping Chen, Vice President, Sales—China of ACM Research (Shanghai), Inc., adopted a Rule 10b5-1 trading arrangement (the "Chen Plan") that is intended to satisfy the affirmative defense of Rule 10b5-1(c) of the Exchange Act. The Chen Plan allows for the contemporaneous exercise of options and sale of up to 105,000 shares of Class A Common Stock, at specific market prices, commencing on August 11, 2023, and continuing until (i) all such options are exercised and the underlying shares are sold, (ii) March 8, 2024, or (iii) such date that the Chen Plan is otherwise terminated according to its terms, whichever comes first.

On May 17, 2023, Haiping Dun, a member of the Board of Directors of the Company, adopted a Rule 10b5-1 trading arrangement (the "Dun Plan") that is intended to satisfy the affirmative defense of Rule 10b5-1(c) of the Exchange Act. The Dun Plan allows for the contemporaneous exercise of options and sale of up to 235,531 shares of Class A Common Stock, at specific market prices, commencing on August 22, 2023, and continuing until (i) all such options are exercised and the underlying shares are sold, (ii) April 30, 2025, or (iii) such date that the Dun Plan is otherwise terminated according to its terms, whichever comes first. The options were granted in May 2015 with a ten-year expiration date.

On June 13, 2023, David Wang, President and Chief Executive Officer of the Company, adopted a Rule 10b5-1 trading arrangement (the "Wang Plan") that is intended to satisfy the affirmative defense of Rule 10b5-1(c) of the Exchange Act. The Wang Plan allows for the contemporaneous exercise of options and sale of up to 720,000 shares of Class A Common Stock, at specific market prices, commencing on September 12, 2023, and continuing until (i) all such options are exercised and the underlying shares are sold, (ii) June 13, 2024, or (iii) such date that the Wang Plan is otherwise terminated according to its terms, whichever comes first. The options were granted in May 2015 with a ten-year expiration date.

Item 6. Exhibits

The following exhibits are filed as part of this report:

Exhibit No.	Description
10.01	Unofficial English Translation of RMB Working Capital Loan Contract dated as of July 25, 2023, by and between ACM Research, Inc. and China CITIC Bank Co., Ltd. Shanghai Bank (incorporated herein by reference to Exhibit 10.01 to the Current Report on Form 8-K filed on July 31, 2023)
10.02	Lease Agreement dated March 6, 2023, by and between Hillsboro 229, LLC and ACM Research, Inc.
31.01	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.02	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.01	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
101.INS	Inline XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document)
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in exhibit 101)

SIGNATURES

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

	ACM RESEARCH, INC.	
Date: August 7, 2023	By:	/s/ Mark McKechnie
		Mark McKechnie
		Chief Financial Officer, Executive Vice President and Treasurer *(Principal Financial Officer)*

LEASE AGREEMENT

Between:

HILLSBORO 229, LLC, an Oregon limited liability company
("Landlord")

And

ACM Research, Inc., a Delaware Corporation
("Tenant")

Dated March 6, 2023

Modified Form of LEASE

TABLE OF CONTENTS

Modified Form of LEASE

For valuable consideration, Landlord and Tenant covenant and agree as follows:

1. BASIC LEASE TERMS

A. REFERENCE DATE OF LEASE	March 6, 2023
B. TENANT:	ACM Research, Inc., a Delaware Corporation
Trade Name:	ACM Research
Address (Leased Premises):	2900 NE Century Blvd, Suite 200 Hillsboro, OR 97124
C. Address (For Notices):	2900 NE Century Blvd, Suite 200 Hillsboro, OR 97124
E-mail address:	jim.straus@acmrcsh.com
Primary Tenant Contact:	Jim Straus, VP Sales North America, Europe, and SE Asia
Telephone:	503-341-4213
E-mail address:	jim.straus@acmrcsh.com
D. LANDLORD:	Hillsboro 229 LLC, an Oregon limited liability company
Address (For Notices):	c/o Wyse Real Estate Investors Attn: Traci Twitchell, 810 SE Belmont, Suite 100 Portland, OR 97214
E-mail address:	ttwitchell@wyserea.com overgaagpete@gmail.com
Telephone:	(503) 595-9698
With copy to:	Dunn Carney LLP 851 SW Sixth Avenue, Suite 1500 Portland, OR 97204 Attn: J. David Zehntbauer dzehntbauer@dunncarney.com
Address for Rent Payments:	Same as Landlord address for notices above, or via automatic bank deposit, if directed by Landlord.

E. PREMISES: Suite 200 located at 2900 NE Century Blvd., Hillsboro, Oregon 97124 Building (the "Building") within Techpointe Commons, as generally shown on Exhibit A hereto. The land upon which the building is located, including all parking areas, walkways, landscape areas, together with the Building, is referred to in this Lease as the "Property."

F. PREMISES AREA: Approximately 10,683 Rentable Square Feet (See Exhibit "A"). The parties acknowledge that the calculation of square footage of the Premises is an approximation. No recalculation of square footage of the Premises shall affect the obligations of Tenant under this Lease, including, without limitation, the amount of Base Rent payable by Tenant.

G. BUILDING AREA: Approximately 40,500 Rentable Square Feet

H. **TENANT'S PROPORTIONATE** SHARE OF ADDITIONAL RENT: 26.38% See Section 6(d) below.

I. TENANT'S PERMITTED USE OF PREMISES:

The premises are to be used and occupied only for the purpose of office, light industrial and storage space as well as to include a clean room related to research, development and/or certain semiconductor equipment manufacturing.

J. LEASE TERM: Commencement Date: April 1, 2023

Expiration Date:	August 31, 2030
Number of Full Calendar Months:	Eighty-Eight (88)

K. INITIAL BASE MONTHLY RENT: $14,689.13

L. BASE RENT ADJUSTMENTS:

Effective Dates:	Monthly Base Rent
April 1, 2023 – June 30, 2023	$ 0.00
July 1, 2023 – March 31, 2024	$14,689.13
April 1, 2024 – April 30, 2024	$ 0.00
May 1, 2024 – March 31, 2025	$15,129.80
April 1, 2025 – March 31, 2026	$15,583.70
April 1, 2026 – March 31, 2027	$16,051.21
April 1, 2027 – March 31, 2028	$16,532.75
April 1, 2028 – March 31, 2029	$17,028.73
April 1, 2029 – March 31, 2030	$17,539.59
April 1, 2030 – August 31, 2030	$18,065.78

M. MONTHLY ADDITIONAL RENT ESTIMATE FOR LEASE YEAR 1 (See Section 6):

Estimated Monthly Operating Expenses Insurance and Taxes	$3,719.38

N. **TENANT'S PROPORTIONATE SHARE** (See Section 6(d)): 26.38%

O. PARKING: Tenant shall be entitled is Tenant's Proportionate Share of the parking spaces on the Property, which are available on a first come first serve basis. Tenant shall be entitled to three (3) dedicated parking spaces Monday – Friday from 8am to 6pm ("Dedicated Parking"). The Dedicated Parking shall be located on the west side of the Premises. Any signage for the Dedicated Parking shall be at the Tenant's sole expense and subject to Landlord's approval, which shall not be unreasonably withheld. Dedicated Parking shall be available to attendees of the church tenant of the Building during Sunday service hours.

P. PREPAID RENT: Upon execution of this Lease, Tenant shall deposit with Landlord Eighteen Thousand Four Hundred Eight and 51/100 Dollars ($18,408.51) Dollars (the "Prepaid Rent"), which shall be Base Monthly Rent and Additional Rent due for the first month of the Lease Term for which Base Rent is payable.

Q. SECURITY DEPOSIT: Upon execution of this Lease, Tenant shall deposit with Landlord Twenty One Thousand Seven Hundred Eighty-Five and 16/100 Dollars ($21,785.16) (the "Security Deposit").

R. BROKER(S): Joshua Bean of Ethos Commercial Advisors LLC represents Landlord, and Brian Hanson of Ethos Commercial Advisors LLC represents Tenant.

S. GUARANTORS: None.

T. RENEWAL TERM OPTION: Provided that Tenant is not in default under any provision of this Lease at the time Tenant exercises a Renewal Term (defined below) or at the commencement date of a Renewal Term, Tenant shall have the option to extend the Term for two (2) additional consecutive periods of five (5) years (each, a "Renewal Term") pursuant to the terms and conditions set forth below.

Tenant must give Landlord written notice of its intention to exercise a Renewal Term option ("Renewal Term Notice") not more than 1 year and not less than 270 days prior to the expiration of the then current Term. Landlord will then provide Tenant with written notice of the Market Rate Adjustment to Base Rent for the Renewal Term (a "Rent Adjustment Notice" pursuant to Section 42 below) within thirty (30) days after receiving Tenant's Renewal Term Notice. If Tenant fails to object to the Rent Adjustment Notice within thirty (30) days after receipt thereof, the Rent Adjustment Notice shall be deemed accepted by Tenant. If Tenant timely objects to the Rent Adjustment Notice, the provisions of Section 42 shall be used to determine the Market Rate Adjustment to Base Rent for the first year of the Renewal Term. Base Rent shall during each Renewal Term shall increase by three percent (3%) annually. Except as otherwise provided herein, the terms and conditions of the Lease for the Renewal Term shall be identical with the original terms and conditions of the Initial Term except for the Base Rent adjustment and except that, following the second Renewal Term, there shall be no further option to extend the Term.

2. LEASE OF PREMISES

Landlord hereby leases to Tenant and Tenant hereby leases from Landlord certain space in the Building consisting of approximately 10,683 rentable square feet, as outlined on the attached Exhibit A (the "Premises") on the terms and conditions set forth in this Lease. Landlord shall deliver the Premises clean, free of Hazardous Materials, and with the structural elements, exterior walls, windows, roof and Building envelope, in good working condition. As of the Lease Commencement Date the Premises, common areas, exterior areas and path of travel to the Premises shall be in compliance with Laws (defined below), including OSHA and all Laws pertaining to Hazardous Materials (defined below). Subject to the foregoing representations, upon taking possession of the Premises, Tenant shall be deemed to have accepted the Building, Premises and all Building systems in "AS IS" condition.

3. TERM

(a) Commencement Date and Delivery of Possession

The term of this Lease (the "Term") shall be for a period of approximately eighty-eight (88) months, commencing on the date on April 1, 2023 (the "Commencement Date") under the terms of this Lease, and ending on August 31, 2030. Tenant shall complete any work required in the Premises and approved by Landlord pursuant to Section 9 below and Exhibit B, within twelve (12) months after Landlord delivers possession of the Premises to Tenant. If the Commencement Date shall be a day other than the first day of a calendar month, then the Term shall be deemed extended by the number of days between the Commencement Date of this Lease and the first day of the first calendar month thereafter, so that the Term shall expire at the end of a calendar month.

(b) Early Access by Tenant.

Following mutual execution of this Lease, Tenant may have early access to the Premises prior to the Commencement Date for the purpose of installation of Tenant's improvements to the Premises, equipment setup and furniture fit up.. Prior to any early access to the Premises, Tenant shall provide proof of the insurance required pursuant this Lease and Tenant's entry into the Premises shall be subject all terms and conditions of this Lease, except the payment of Base Rent and Additional Rent. Tenant's entry shall mean entry by Tenant, its officers, contractors, employees, licensees, agents, servants, guests, invitees, or visitors.

(c) Delay in Delivery of Premises.

If Landlord, for any reason, does not deliver possession of the Premises on the estimated Commencement Date set forth in the Basic Lease Terms (the "Estimated Commencement Date"), this Lease shall not be void or voidable, nor shall Landlord be liable to Tenant for any loss or damage resulting from such delay. In that event, however, Landlord shall deliver possession of the Premises as soon as reasonably practicable and Tenant's obligation to pay Rent hereunder shall not commence until Landlord delivers the Premises to Tenant. If Landlord is delayed in delivering possession to Tenant for any reason attributable to Tenant, this Lease shall commence on the Commencement Date set forth in the Basic Lease Terms. Subject to Landlord's representations regarding the condition of the Premises, Tenant's occupancy of the Premises shall constitute conclusive acceptance of the amount of square footage stated herein, and of the condition of the Premises. Upon determination of the Commencement Date, Landlord and Tenant will cooperate to complete a Commencement Date Certificate in the form attached as Exhibit C.

(d) Expiration of Term.

The expiration date of the Term shall be the date stated in the Basic Lease Terms or, if the Commencement Date is delayed, then the last day of the calendar month that is the number of full calendar months stated in the Basic Lease Terms from the month that the Commencement Date occurs.

4. BASE RENT

Beginning on the Commencement Date and continuing during the entire Term, Tenant shall pay to Landlord as rent for each "Lease Year" "Base Rent" as defined in this Section. The term "Lease Year" shall mean the period from the Commencement Date through the final day of the first month of March following the Commencement Date, April 1 through the final day of March of the following calendar year for each subsequent full calendar year during the Term, and April 1 to the end of the Term for the final Lease Year. All Rent shall be paid when due without notice, offset, or deduction for any reason.

(a) Base Rent

The initial monthly Base Rent during the Term ("Base Rent") shall be Fourteen Thousand Six Hundred Eighty-Nine and 13/100 Dollars ($14,689.13). The Base Rent shall increase in the amounts and at the times set out in Section 1.L. of the Basic Lease Terms. Base Rent shall be paid in advance on or before the first (1st) day of each calendar month during the Term, except for the first (1st) calendar month. Upon execution of this Lease, Tenant shall pay to Landlord the Prepaid Rent, which is set forth on the Basic Lease Terms. If the first (1st) month of the Term shall be a partial month, Base Rent shall be prorated on a daily basis, based on the actual number of days in such month.

(b) General

All references to "Rent" or "Rental" in this Lease shall mean Base Rent, Additional Rent, and all other payments required of Tenant under this Lease, unless otherwise expressly specified, and all payments required by Tenant under this Lease shall be deemed "Rent."

(c) Place of Payment

Tenant shall pay Rent and other amounts required to be paid by Tenant hereunder to Landlord at the address for Landlord set forth on the Basic Lease Terms of this Lease, or at such other place as Landlord may from time to time designate in writing.

(d) Prepaid Rent

Upon the execution of this Lease by Tenant, Tenant shall pay to Landlord the Prepaid Rent set forth on the Basic Lease Terms. Landlord's obligations with respect to the prepaid rent are those of a debtor and not of a trustee, and Landlord shall be entitled to commingle the Prepaid Rent with Landlord's general funds. Landlord shall not be required to pay Tenant interest on the Prepaid Rent. Landlord shall be entitled to immediately endorse and cash Tenant's Prepaid Rent; however, such endorsement and cashing shall not constitute Landlord's acceptance of this Lease. In the event Landlord does not accept this Lease, Landlord shall promptly return said Prepaid Rent to Tenant. The Prepaid Rent, which includes both Base Rent and monthly Additional Rent, shall be applied to the Rent due for the first calendar month in which a payment of Base Rent is due pursuant to Section 1.L.

5. SECURITY DEPOSIT

Upon the execution of the Lease by Tenant, Tenant shall pay to Landlord the amount stated in the Basic Lease Terms as a Security Deposit. Landlord may apply the Security Deposit to pay the cost of performing any obligation Tenant fails to perform within the time required by this Lease, but such application by Landlord shall not waive Landlord's other remedies nor be the exclusive remedy for Tenant's default. If the Security Deposit is applied by Landlord, Tenant shall on demand pay the sum necessary to replenish the Security Deposit to its original amount. In no event will Tenant have the right to apply any part of the Security Deposit to any Rent or other sums due under this Lease. If Tenant is not in breach or default at the expiration or termination of this Lease, and Tenant has completed all its obligations under Section 21 of this Lease, and all other obligations required to be performed, Landlord shall, within thirty (30) days following the expiration or termination of this Lease, return the unapplied portion of the Security Deposit to Tenant, except for any portion retained by Landlord pursuant to the provisions of this Section 5, Section 19, or Section 20, or any other provision of this Lease. Landlord's obligations with respect to the Security Deposit are those of a debtor and not of a trustee, and Landlord shall be entitled to commingle the Security Deposit with Landlord's general funds. Landlord shall not be required to pay Tenant interest on the Security Deposit. Landlord shall be entitled to immediately endorse and cash Tenant's Security Deposit; however, such endorsement and cashing shall not constitute Landlord's acceptance of this Lease. In the event Landlord does not accept this Lease, Landlord shall return said Security Deposit. If Landlord sells its interest in the Premises during the term hereof and deposits with or credits to the purchaser the unapplied portion of the Security Deposit, thereupon Landlord shall be discharged from any further liability or responsibility with respect to the Security Deposit.

6. ADDITIONAL RENT

(a) Operating Expenses

In addition to Base Rent, beginning on the Commencement Date, and throughout the Lease Term, Tenant shall pay to Landlord Tenant's Proportionate Share of the Operating Expenses incurred by Landlord in connection with the Property. The term "Operating Expenses" shall mean all expenses paid or incurred by Landlord or on Landlord's behalf, as reasonably determined by Landlord to be necessary or appropriate for the operation, management, maintenance, and repair of the Property and the Building, including, but not limited to: all water and sewer charges; the cost of natural gas and electricity provided to the Building; janitorial and cleaning supplies and services; administration costs and management fees (management fees are currently 4% for 2023 and shall be capped at 4% for the Lease Term and any Renewal Terms); security services, if any; insurance premiums for the Building and the Property; licenses; and permits for the operation and maintenance of the Building and all its component elements and mechanical systems; ordinary and emergency repairs and maintenance and reasonable reserves for the foregoing. Operating Expenses shall also include the cost of any capital improvement to the Property or Building, amortized with a reasonable finance charge over the period Landlord shall reasonably elect consistent with applicable tax laws. Operating Expenses shall also include a commercially reasonable management fee paid by Tenant to Landlord in an amount equal to Landlord's total management fee multiplied by Tenant's Proportionate Share, as stated in the Basic Lease Terms. Tenant shall pay to Landlord an amount each month which is equal to one-twelfth (1/12) of Tenant's Proportionate Share of the estimated Annual Operating Expenses, as provided in Section 6(c) below. Notwithstanding anything to the contrary in this Lease, "Operating Expenses" shall not include any of the following, and may not be charged to Tenant as part of Operating Expenses:

(i) Income Taxes. Inheritance, estate, succession, gift, unincorporated business, income, or franchise taxes imposed upon Landlord; provided, however, that if Landlord is required to pay a corporate activities tax, the same shall not be excluded from the Taxes payable by Tenant hereunder.

(ii) Mortgage/Financing Costs. Loan payments, secured loan amortization and interest, costs relating to acquiring or negotiating equity contributions, costs and charges incurred in obtaining any public or private financing, and refinancing or loan modifications.

(iii) Ground Lease. Any rental payments and related costs pursuant to any ground, underlying or superior leases of the real property underlying all or any portion of the Property.

(iv) Fines and Penalties. Any fines, costs, late charges, liquidated damages, penalties, tax penalties, or related interest charges imposed on Landlord or Landlord's managing agent.

(v) Legal and Accounting. Fees relating to: (a) disputes with other tenants, prospective tenants or other occupants of the Building or Property, including lease takeover or lease take back costs; (b) disputes between Landlord and members, partners, or affiliates of Landlord; (c) disputes with purchasers, prospective purchasers, mortgagees, or prospective mortgagees of the Building or Property or the real property on which the Building or Property is located or any part of either; or (d) negotiations of leases, mortgages, or other security instruments, or contracts of sales or transfers of all or any portion of the Building or Property or any interest therein by any person of any tier owning an interest therein.

(vi) Concessionaires. Any compensation or benefits paid to or provided to clerks, attendants, or other persons in commercial concessions operated by or on behalf of Landlord.

(vii) Art. Costs for sculptures, paintings, fountains, or other objects of art or the display of such items in the Building or Property or the real property on which the Building or Property is located.

(viii) Specialty Improvements. Costs of installing, operating, and maintaining a specialty improvement, including a cafeteria, lodging, or private dining facility, or a luncheon or recreational club, but exclusive of any such facility in the Building or Property available for use by tenants of the Building or Property (at no charge to Tenant's employees).

(ix) Reimbursements. Any cost of any service or items sold or provided to tenants or other occupants for which Landlord or Landlord's managing agent has been or is entitled to be reimbursed by such tenants or other occupants for such service or has been or is entitled to be reimbursed or otherwise compensated by parties other than tenants of the Building or Property to include replacement of any item covered by a warranty.

(x) Contributions/Dues/Subscriptions. Any costs, fees, dues, contributions, or similar expenses for political, charitable, industry association, or similar organizations, as well as the cost of any newspaper, magazine, trade, or other subscriptions.

(xi) Advertising/Promotion/Gifts. All advertising and promotional costs including any form of entertainment expenses, dining expenses, any costs relating to tenant or vendor relation programs including flowers, gifts, luncheons, parties, and other social events but excluding any cost associated with life safety information services and other like property management events.

(xii) Leasing. Any costs relating to the marketing, solicitation, negotiation, and execution of leases of space in the Building or Property, including without limitation, promotional and advertising expenses, commissions, finders' fees and referral fees, legal fees and expenses relating to the negotiation and preparation of any lease, sublease (except as otherwise provided in Section 22), or other occupancy document, tenant improvement costs for tenant or other occupant space, the amount of any allowances or credits paid or granted to tenants or other occupants of any such design or construction, and all other costs of alterations of space in the Building or Property leased to or occupied by other tenants or occupants.

(xiii) Executive/Unrelated Salaries. Wages, salaries, fees, fringe benefits, and any other forms of compensation paid to any executive employee of Landlord and/or Landlord's managing entities or partners above the grade of Building or Property manager, as such term is commonly understood in the property management industry, provided, however, all wages, salaries, and other compensation otherwise allowed to be included in Operating Expenses shall also exclude any portion of such costs related to any employee's time devoted to other efforts unrelated to the maintenance, accounting, management, and operation of the Building or Property. The costs related to Landlord administration activities specifically related to only the Building or Property, regardless of where conducted, shall be included in Operating Expenses.

(xiv) Arm's Length Transactions. Any amount paid by Landlord or Landlord's managing agent to a subsidiary or affiliate of Landlord or Landlord's managing agent, or to any party for management or other services to the Building or Property, or for supplies or other materials, to the extent the costs of such services, supplies, or materials exceed the commercially reasonable costs that would have been paid had the services, supplies, or materials been provided by parties unaffiliated with Landlord or Landlord's managing agent on an arm's-length basis.

(b) Property Taxes and Insurance

In addition to Base Rent, Tenant shall pay Tenant's Proportionate Share of all real property taxes and assessments levied, assessed, or imposed during the Term upon the Property ("Taxes") and the costs of insurance provided by Landlord pursuant to Section 7(a) ("Insurance"). Tenant shall pay to Landlord an amount each month which is equal to one-twelfth (1/12) of Tenant's Proportionate Share of the estimated annual Taxes and Insurance together with Tenant's payments of Operating Expenses, as provided in Section 6(c) below. If, during the Term, the voters of the state or the state legislature in which the Premises are located enacts a real property tax limitation, then any substitute taxes, in any name or form, that may be adopted to replace or supplement real property taxes, shall be added to Taxes for purposes of this Section 6(b). Should there be in effect during the Term any law, statute, or ordinance that levies, assesses, or imposes any tax (other than federal or state income tax) upon rents, including without limitation any corporate activities tax, Tenant shall pay such taxes as may be attributable to the Rents under this Lease or shall reimburse Landlord for any such taxes paid by Landlord within ten (10) days after Landlord bills Tenant for the same.

(c) Payment of Operating Expenses, Taxes and Insurance

Landlord shall notify Tenant of Tenant's required estimated monthly payments of Operating Expenses, Real Property Taxes, and Insurance. Beginning on the Commencement Date, and continuing throughout the Term, Tenant shall make such monthly payments on or before the first (1st) day of each calendar month. Landlord may, from time to time, by written notice to Tenant, change the estimated monthly amount to be paid. No interest or earnings shall be payable by Landlord to Tenant on any amount paid under this Section 6, and Landlord may commingle such payments with other funds of Landlord. Landlord shall, within one hundred twenty (120) days after the close of each calendar year or as soon thereafter as is practicable, deliver to Tenant a written statement setting forth the actual Operating

Expenses, Real Property Taxes, and Insurance for the prior year together with a computation of the charge or credit to Tenant of any difference between the actual cost and the estimated cost paid by Tenant for such period; any such difference shall be applied to amounts subsequently due from Tenant to Landlord, or if no such sums are or will be owed, then such sums shall be paid or reimbursed, as applicable, within ten (10) days after Landlord gives Tenant notice thereof. If Tenant has any objections to the annual statement made by Landlord, such objections shall be made in writing and given to Landlord within sixty (60) days after the statement is submitted to Tenant. If no objection is made within such time period, the annual statement shall be conclusive and binding on Tenant.

If Tenant desires to review any of Landlord's records pertaining to Operating Expenses, Real Property Taxes, or Insurance, Tenant may do so after reasonable prior notice given to Landlord, but no more often that once during any calendar year. Such review shall take place where such records are kept, and shall be conducted by a certified public accountant chosen by Tenant subject to Landlord's prior written approval, which shall not be unreasonably withheld. Tenant shall pay all costs of such review including without limitation reimbursement for time incurred by Landlord's representatives and photocopy charges. In no event shall Tenant be entitled to employ or retain any auditor, consultant, or other professional in connection with exercising any right under this Section 6(c) whose fee is paid based on the results of the review. If the Tenant's review report produced by a CPA or qualified professional shows that the amount Landlord charged Tenant for Tenant's Share of Expenses was greater than the amount Tenant is obliged to pay, unless Landlord reasonably contests the review, any excess shall be applied toward future Rent coming due. If the review report shows that the amount Landlord charged Tenant was less than the amount Tenant is obligated to pay, Tenant shall pay to Landlord, as Additional Rent, the difference between the amount Tenant paid and the amount determined in the review. Tenant shall bear the cost of its review; provided, however, that Landlord shall pay the reasonable fees and expenses of Tenant's review if the final review report indicates that Tenant was overcharged by 5% or more for the year covered by such review. Tenant shall keep all information it obtains in any review confidential and may only use such information for the limited purpose set forth in this section.

(d) **Tenant's Proportionate Share**

For the purposes of this Lease, "Tenant's Proportionate Share" shall mean, with regard to all Operating Expenses that are shared by all tenants of the Property, a fraction in which the numerator is equal to the approximate number of rentable square feet in the Premises and the denominator is equal to the approximate number of rentable square feet of space at the Property. Landlord may reasonably modify Tenant's Proportionate Share if the total number of square feet of leased space at the Property changes, or if the total number of square feet of rentable area at the Property changes. In the event that Landlord reasonably determines that Tenant is using more that it's proportionate share of utilities or other Operating Expenses, then Landlord may allocate the excess Operating Expenses to Tenant as is commercially reasonable.

(e) Payments to Third Party Providers

In addition to the Base Rent and all Additional Rent described above, Tenant shall also be solely responsible to pay all utilities, costs and expenses arising from Tenant's use, occupancy, tenancy or operation of the Premises and shall pay such sums directly to the applicable providers as and when due, and prior to becoming delinquent.

7. INSURANCE; INDEMNITY

(a) Insurance

During the Term, Landlord shall maintain in full force a policy or policies of standard multi-peril insurance covering the Building and other improvements (exclusive of Tenant's trade fixtures, tenant improvements and other property) situated on the Property for the perils of fire, lightening, windstorm, and other perils commonly covered in such policies. Additionally, the perils of earthquake, landslide, flood, and/or other perils may be covered at the election of Landlord. During the Term, Landlord shall maintain in full force a comprehensive liability insurance policy in amounts considered appropriate by Landlord insuring Landlord against liability for bodily injury and property damage occurring in, on, or about the Property. Landlord shall use its reasonable efforts to secure said insurance at competitive rates.

(b) Increases in Premiums

This Lease is entered into on the basis that Tenant's occupancy will not affect the Property's classification for insurance rating purposes. If the insurance premiums on the Property are increased during the Term as a result of the installation of equipment on the Premises by Tenant, by reason of Tenant's maintaining certain goods or materials on the Premises, or as a result of other use or occupancy of the Premises by Tenant, Tenant shall pay the resulting additional cost of the insurance for the Property (regardless of whether Landlord has consented to the activity resulting in the increased insurance premiums). Tenant shall refrain from any activity in its use of the Premises that would make it impossible to insure the Premises or the buildings situated on the Property against casualty or that would increase the insurance rate of any such buildings or prevent Landlord from taking advantage of the ruling of the Insurance Rating Bureau of the state in which the Premises are situated or its successors allowing Landlord to obtain reduced premium rates for long-term fire insurance policies, unless Tenant pays the additional cost of the insurance. All of Tenant's electrical equipment shall be U-L approved. If Tenant installs any electrical equipment that overloads the lines in the Premises or in any such buildings, Tenant shall at its own expense make whatever changes are necessary to comply with the requirements of the insurance underwriters and governmental authorities having jurisdiction. Any insurance premiums to be paid under this Section 7(b) by Tenant by reason of its initial intended use of the Premises or any increase in insurance premiums attributable to Tenant's use or occupancy of the Premises during the Term shall be paid by Tenant to Landlord within fifteen (15) days after Landlord bills Tenant for the same.

(c) Indemnity; Tenant's Insurance

Tenant shall indemnify, defend, and save harmless Landlord from any and all liability, damage, expenses, attorneys' fees, causes of actions, suits, claims, or judgments arising out of or connected with (i) the use, occupancy, management, or control of the Premises, (ii) any failure of Tenant to comply with the terms of this Lease, and (iii) the negligent or intentional acts or omissions of Tenant, its agents, officers, directors, employees, or invitees; provided, however, that Tenant shall not be liable for claims caused by the gross negligence or willful misconduct of Landlord or its agents or representatives. Tenant shall, at its own cost and expense, defend any and all suits that may be brought against Landlord either alone or in conjunction with others upon any such above-mentioned cause or claim, and shall satisfy, pay, and discharge any and all settlements paid by or judgments that may be entered against Landlord, regardless of whether a lawsuit is actually filed.

Landlord shall indemnify, defend, and save harmless Tenant from any and all liability, damage, expenses, attorneys' fees, causes of actions, suits, claims, or judgments arising out of or connected with (i) any failure of Landlord to comply with the terms of this Lease, and (ii) the acts or the grossly negligent or intentional omissions of Landlord, its agents, officers, directors, employees, or invitees; provided, however, that Landlord shall not be liable for claims caused by the negligence or willful misconduct of Tenant or its agents or representatives. Landlord shall, at its own cost and expense, defend any and all suits that may be brought against Tenant either alone or in conjunction with others upon any such above-mentioned cause or claim, and shall satisfy, pay, and discharge any and all settlements paid by or judgments that may be entered against Tenant, regardless of whether a lawsuit is actually filed.

Tenant shall at its own expense during the Term carry in full force and effect (a) a comprehensive public liability insurance policy with limits of not less than Two Million Dollars ($2,000,000) combined single limit bodily injury and property damage per occurrence and in aggregate, and, if Tenant owns vehicles (b) an automobile liability insurance covering owned, non-owned, and hired vehicles with a limit of not less than One Million Dollars ($1,000,000), with an insurance carrier satisfactory to Landlord, naming Landlord, Landlord's management agent, and Landlord's lender as additional insureds. Said insurance policies shall insure against any and all liability of Tenant with respect to the Premises and under this Lease including, without limitation, Tenant's indemnity obligations under this Lease, or arising out of the maintenance, use, or occupancy of the Premises. Tenant shall carry insurance that fully covers repair and replacement of broken windows. Such policies shall provide, if available, that the insurance shall not be cancelable or modified without at least thirty (30) days' prior written notice to Landlord, Landlord's lender and Landlord's managing agent, if any, and shall be deemed primary and noncontributing with other insurance available to Landlord. On or before the Commencement Date or prior to any early access to the Premises, Tenant shall furnish Landlord with a certificate or other acceptable evidence that such insurance is in effect. Tenant shall also provide and maintain insurance to comply with Workers Compensation and Employers Liability Laws.

(d) Waiver of Subrogation

Neither party shall be liable to the other for any loss or damage caused by fire or any of the risks enumerated in a standard multiperil insurance policy, including sprinkler leakage insurance if the Premises have sprinklers, to the extent that any such insurance actually pays any such loss or damage. All claims or rights of recovery for any and all such loss or damage, however caused, are hereby waived. Without limiting the generality of the foregoing, said absence of liability shall exist whether or not such loss or damage is caused by the negligence of either Landlord or Tenant or by any of their respective agents, servants, or employees.

8. USE OF PREMISES

The Premises shall be used solely for the Permitted Use set out in Section 1.I., and for no other purpose without Landlord's written consent. In connection with the use of Premises, Tenant shall, at Tenant's sole cost and expense, except as specifically provided otherwise herein:

(a) Conform to all applicable laws, statutes, rules, ordinances, orders, regulations, and requirements of any public authority ("Laws") affecting the Premises and the use of the Premises and correct, at Tenant's own expense, any failure of compliance created through Tenant's fault or by reason of Tenant's use, unless such failure is due to Landlord's default in the performance of the agreements set forth in this Lease to be kept and performed by Landlord. Without limiting the generality of the foregoing, Tenant shall comply with the Americans with Disabilities Act as it applies to the Premises and all obligations pertaining to asbestos as required by the Occupational Safety and Health Administration (OSHA) applicable to the Premises and to Tenant's employees; provided that Tenant shall not be required to make any structural change, alteration, addition or correction required by any applicable law or regulation governing the Premises which may be adopted or promulgated after the date of this Lease, unless the same is required by Tenant's alteration of the Premises or by Tenant's specific use of the Premises.

(b) Refrain from any activity that would be unreasonably offensive to Landlord, to other tenants in any buildings situated on the Property, or to owners or users of the adjoining premises, or that create a nuisance or damage the reputation of the Premises or of any such buildings. Without limiting the generality of the foregoing, Tenant shall not permit any noise or odor to escape or be emitted from the Premises nor permit the use of flashing (strobe) lights nor permit the sale or display of offensive materials as reasonably determined by Landlord;

(c) Refrain from loading the floors, electrical systems, plumbing systems, or heating, ventilating and air conditioning systems ("HVAC"), beyond the point considered safe by a competent engineer or architect selected by Landlord and refrain from using electrical, water, sewer, HVAC, and plumbing systems in any harmful way. If Landlord employs an engineer, architect, electrical, or other consultant to determine whether Tenant's use of the Premises is in violation of this Section8(c), and it is determined that Tenant is in violation of this Section 8(c), Tenant shall pay the reasonable costs incurred in connection with that employment. Tenant shall use hair interceptors, grease traps, or other drain protection devices as needed to avoid such harmful use;

(d) Not permit any pets or other animals in the Premises except for seeing-eye dogs, or other service animals which are required by applicable law to be admitted to the Premises;

(e) Refrain from making any marks on or attaching any sign, insignia, antenna, window covering, aerial, or other device to the exterior or interior walls, windows, or roof of the Premises without the written consent of Landlord, which consent shall not be unreasonably withheld, provided that Tenant fully complies with the provisions of Section 39 of this Lease;

(f) Comply with any reasonable rules respecting the use of the Premises promulgated by Landlord from time to time and communicated to Tenant in writing, including such Rules and Regulations set forth in Exhibit D of this Lease, if any, to the extent not inconsistent with the terms of this Lease and the use to which Tenant has disclosed in writing to Landlord that Tenant will use the Premises, as set forth herein. Without limiting the generality of the foregoing, such rules may regulate deliveries to the Premises and may regulate parking by employees. Tenant shall use its best efforts to complete, or cause to be completed, all deliveries, loading and unloading, to the Premises by 11:00 a.m. each day, and to prevent delivery trucks or other vehicles serving the Premises to park or stand in front of the locations of other tenants;

(g) Notwithstanding the above mentioned, it is understood that the Tenant will conduct operations outside of normal business hours (weekday evenings, Saturdays, Sundays and holidays) and will be allowed to access the parking freely, first come, first serve without penalty.

(h) Prohibit smoking and vaping on the Premises and comply with any no smoking, no vaping (and other health related) policies and procedures established by any Law or by Landlord from time to time;

(i) Not permit any cash, credit card, or coin-operated vending, novelty, or gaming machines or equipment on the Premises without the prior written consent of Landlord; and not permit the use of any part of the Premises for a second-hand store, an auction, distress, fire sale, bankruptcy, or going-out-of-business sale or the like;

(j) Refrain from violating or causing the violation of any exclusive use provision granted to any tenant or other occupant of the Property as to which Tenant has been given written notice;

(k) Not commit or suffer any harm to the Premises, including without limitation, the improvements thereon or any part thereof; and Tenant shall keep the Premises in a neat, clean, sanitary, and orderly condition;

(l) Refrain from any use of any area on the Property that is outside the Premises, unless such use is specifically permitted in writing by Landlord in advance;

(m) Not generate, release, store, or deposit on the Premises any environmentally hazardous or toxic substances, materials, wastes, pollutants, oils, or contaminants, as defined or regulated by any federal, state, or local law or regulation or any other Law (collectively, "Hazardous Materials," as defined in Section 14), except that Tenant may have and use Hazardous Substances on the Premises, in strict compliance with all applicable laws, as required in the ordinary course of Tenant's operations;

(n) Not allow or permit any conduct or omission at the Premises, or anywhere on the Property, that will promote or allow the production or growth of mold, spores, fungus, or any other similar organism, and shall indemnify and hold Landlord harmless from any claim, demand, cost, and expense (including attorney fees) arising from or caused by Tenant's failure to strictly comply with its obligations under this provision; and

(o) Comply with the requirements of all operation and easement agreements and all other agreements and requirements of record on the Property.

9. IMPROVEMENTS AND ALTERATIONS

(a) Tenant shall not make any alterations, additions, or improvements to the Premises, change the color of the interior, or install any wall or floor covering without Landlord's prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed. Landlord and Tenant shall work together cooperatively to design appropriate outdoor signage and interior improvements necessary for Tenant's intended use of the Premises. Should Landlord consent in writing to Tenant's alteration of the Premises, Tenant shall contract with a contractor approved by Landlord for the construction of such alterations, shall secure all appropriate governmental approvals and permits, and shall complete such alterations with due diligence in compliance with the plans and specifications approved by Landlord. All such construction shall be performed in a manner that will not interfere with the quiet enjoyment of other tenants of the Building. Any such improvements, alterations, wiring, cables, or conduit installed by Tenant shall at once become part of the Premises and belong to Landlord, except for removable machinery and unattached movable trade fixtures. Landlord shall have the right to approve the contractor used by Tenant for any work in the Premises, which approval shall not be unreasonably withheld, and to post notices of non-responsibility in connection with work being performed by Tenant in the Premises. Work by Tenant shall comply with all laws then applicable to the Premises. Tenant shall not allow any liens to attach to the Building or Tenant's interest in the Premises as a result of its activities or any alterations.

(b) Tenant shall provide, or shall cause Tenant's general contractor to provide, evidence of the following insurance coverages prior to commencing work and upon demand during the course of the work: a) worker's compensation for statutory limits in compliance with applicable state and federal laws; b) commercial general liability with limits of not less than Two Million and No/100 Dollars ($2,000,000) combined single limit per occurrence for bodily injury and property damage, naming Landlord and its Landlord's Property Manager as additional insureds; and c) builder's risk coverage in the coverage amount not less than the projected cost of the improvements contemplated.

Each certificate of insurance must contain a provision confirming that no cancellation or material change in policies will be effective except upon thirty (30) days written notice to Landlord, if available.

(c) Provided that it does not materially interfere with Tenant's Permitted Use of or access to the Premises, Landlord may perform alterations to or change the configuration of the Building, the parking area, and other areas on the Property, in Landlord's sole discretion.

10. REPAIRS AND MAINTENANCE

(a) Landlord's Responsibilities
The following shall be the responsibility of Landlord, provided that the cost thereof shall be recoverable by Landlord as Operating Expenses to the extent provided in Section 6(a):

i. Structural repairs and maintenance and repairs, underground utilities and mechanical systems, mechanical and electrical systems on the roof of the Building or under the Building bearing walls, subflooring, sprinkler system, roof maintenance, exterior maintenance to outside walls, all parking lots, loading bays, and areas exterior to the Building, the replacement of existing HVAC systems if needed (but not supplemental HVAC systems installed by Tenant), the entire Property not within the Premises, and repair and maintenance of the exterior walls, roof, gutters, downspouts, and foundation of the Building. Any such structure maintenance, replacements, or repairs may be capitalized by Landlord and included as part of the Operating Expenses on a monthly basis over the commercially useful lifespan of such repairs and replacements. This paragraph shall not include maintenance of the operating condition of doors and windows or replacement of glass, nor maintenance of any storefront, each of which is a Tenant responsibility.

(b) Tenant's Responsibilities
The following shall be the responsibility of Tenant directly:

i. All of the interior of the Premises, including any interior decorating and interior improvements;

ii. Any repairs and replacements necessitated by the negligence or use of the Premises by Tenant, its agents, employees, and invitees;

iii. Quarterly service and maintenance and repair of all HVAC systems (including ductwork), including without limitation all existing HVAC systems and any quarterly maintenance and repair and replacement of any supplemental HVAC Systems including ductwork installed by Tenant, and annual service, maintenance, repair and replacement of the standby power generator. Landlord reserves the right to contract with a service company for the maintenance and repair of the foregoing systems, or any of them; and such expenses shall be billed to Tenant as Operating Expenses to paid to Landlord monthly;

iv. Maintenance and repair of the interior walls and floor coverings (both hard surfaces and carpeting);

v. Any repairs or alterations required under Tenant's obligation to comply with all applicable Laws as set forth in this Lease; and

vi. All other repairs, maintenance, and replacements to the Premises which Landlord is not expressly required to make under Section 10(a) above, including, without limitation, the generality of the foregoing, the replacement of all glass that may be broken or cracked during the Term with glass of as good or better quality than that in use at the commencement of the Term, the storefront, sprinkler system if the failure is caused by the Tenant (or parties within Tenant's agency and/or control), wiring and electrical fixtures, plumbing and plumbing fixtures, drainpipes, sewers, septic tanks, and exhaust hoods and venting, including without limitation, repairs outside the Premises if the need for the repair arises from Tenant's use of the Premises. All Tenant's work shall be in full compliance with then-current building code and other governmental requirements. Tenant shall contract with a qualified pest extermination company for regular extermination services to keep the Premises free of pests, vermin, and rodents.

(c) Repair Inspections

Landlord shall have the right to inspect the Premises at any reasonable time or times following at least 24 hours' prior notice to determine the necessity of repair. Whether or not such inspection is made, the duty of Landlord to make repairs as outlined above in any area in Tenant's possession and control shall not arise until a reasonable time after Landlord has received from Tenant written notice of the necessity of repairs. In the event emergency repairs may be required, Tenant shall give Landlord immediate notice thereof.

(d) Landlord's Work

All repairs, replacements, alterations, or other work performed on or around the Premises by Landlord shall be done in such a way as to minimize any interference as reasonably practicable, with the use of the Premises by Tenant. Tenant shall have no right to an abatement of Rent or any claim against Landlord for any inconvenience or disturbance resulting from Landlord's performance of repairs and maintenance pursuant to this Section 10. Landlord shall have no liability for failure to perform required maintenance and repair, unless written notice of such maintenance or repair is given by Tenant and Landlord fails to commence efforts to remedy the problem in a reasonable time and manner (but no later than thirty (30) days after Tenant's notice). If the problem is of such nature that it cannot be completely remedied within 30 days, this provision shall be complied with if Landlord commences efforts to remedy the problem within the 30-day period and thereafter proceeds with reasonable diligence and in good faith to effect the remedy as soon as practicable. Landlord shall have the right to erect scaffolding and other apparatus necessary for the purpose of making repairs or alterations to the Building. Work may be done during normal business hours. Provided Landlord uses commercially reasonable efforts to minimize such interference and does not block the entrances to the Premises, Tenant shall have no claim against Landlord for any interruption or reduction of services or interference with Tenant's occupancy caused by Landlord's maintenance and repair, and no such interruption or reduction shall be construed as a constructive or other eviction of Tenant.

11. LIENS; TENANT'S TAXES

Tenant shall keep the Premises free from all liens, including mechanic's liens, arising from any act or omission of Tenant or those claiming under Tenant. Landlord shall have the right to post and maintain on the Premises or the Building such notices of non-responsibility as are provided for under the lien laws of the state in which the Premises are located. Tenant shall be responsible for and shall pay when due all taxes assessed during the Term against any leasehold or personal property of any kind owned by or placed upon or about the Premises by Tenant.

12. UTILITIES AND SERVICES

Tenant shall pay promptly for all water and sewer facilities, gas and electrical services, including heat and light, garbage collection, recycling, and all other facilities and utility services used by Tenant or provided to the Premises during the Term. Utility meters and breakers are located in a separate suite and Tenant shall be provided reasonable access to address, repair or service as may be needed with written notice to the property manager, except in the case of emergency. If the heating and air-conditioning systems or any other utility service is not on separate meters, Tenant shall pay its proportionate share of such charges as reasonably determined by Landlord as provided in Section 6(a) of this Lease. Tenant shall arrange for regular and prompt pickup of trash and garbage and shall store such trash and garbage in only those areas designated by Landlord. However, if Landlord elects to arrange for garbage collection on a cooperative basis for Tenant and other tenants, Tenant shall pay its proportionate share as reasonably determined by Landlord as provided in Section 6(a) of this Lease. Tenant shall comply with any recycling programs required by any Law or reasonably required by Landlord. Landlord shall not be liable or responsible for any interruption of utility service to the Premises and any such interruption shall not entitle Tenant to any abatement of Rent, unless such interruption is caused solely by the negligence of Landlord, and continue for a period of forty-eight (48) continuous hours or more.

13. ICE, SNOW, AND DEBRIS

Tenant shall keep the walks in front of the Premises free and clear of ice, snow, rubbish, debris, and obstructions. Tenant shall indemnify and hold Landlord harmless from any injury whether to Landlord or Landlord's property or to any other person or property caused by Tenant's failure to perform Tenant's obligations under this Section 13. Tenant's obligations under this Section 13 shall be performed at Tenant's cost and expense. Landlord reserves the right to cause the removal of ice, snow, debris and obstruction from the area in front of the Premises and Tenant shall pay the cost thereof within ten (10) days after billing therefor.

14. HAZARDOUS MATERIALS

(a) Environmental Questionnaire

Tenant has fully and accurately completed Landlord's Pre-Leasing Environmental Questionnaire ("Environmental Questionnaire") attached hereto as Exhibit E and incorporated herein by reference. Tenant hereby represents, warrants and covenants that except for those chemicals or materials, and their respective quantities listed on the Environmental Questionnaire, Tenant will not use, store or generate any "Hazardous Materials" (as defined below) in, on, under or about the Premises, Building and/or Project. Tenant further represents, warrants and covenants that except for those chemicals and materials, and their respective quantities listed on the Environmental Questionnaire, Tenant shall not cause or permit any Hazardous Materials to be brought upon, placed, stored, manufactured, generated, blended, handled, recycled, disposed of, used or released on, in, under or about the Premises and/or Project by Tenant or its agents, employees, contractors, subcontractors, subtenants, assigns or invitees. Tenant shall keep, operate and maintain the Premises in full compliance with all Environmental Requirements (as defined below). Notwithstanding the foregoing or anything to the contrary herein, in no event shall Tenant be permitted to use, store or generate any chlorinated solvents, trichloroethene (TCE), polychlorinated biphenyls (PCBs), polyaromatic hydrocarbons (PAHs), mercury or other heavy metals, or phthalates in, on, under or about the Premises and/or Project.

(b) Environmental Requirements

The term "Environmental Requirements" means all applicable present and future statutes, regulations, ordinances, rules, codes, judgments, permits, authorizations, orders, policies or other similar requirements of any governmental authority, agency or court regulating or relating to health, safety, or environmental conditions on, under, or about the Premises or the environment, including without limitation, the following: the Comprehensive Environmental Response, Compensation and Liability Act; the Resource Conservation and Recovery Act; the Clean Air Act; the Clean Water Act; the Toxic Substances Control Act and all state and local counterparts thereto, and any common or civil law obligations including, without limitation, nuisance or trespass, and any other requirements of this Lease. The term "Hazardous Materials" means and includes any substance, material, waste, pollutant, or contaminant that is or could be regulated under any Environmental Requirement or that may adversely affect human health or the environment, including, without limitation, any solid or hazardous waste, hazardous substance, asbestos, petroleum (including crude oil or any fraction thereof, natural gas, synthetic gas, polychlorinated biphenyls (PCBs), and radioactive material). For purposes of Environmental Requirements, to the extent authorized by law, Tenant is and shall be deemed to be the responsible party, including without limitation, the "owner" and "operator" of Tenant's "facility" and the "owner" of all Hazardous Materials brought on the Premises or Property by Tenant, its agents, employees, contractors or invitees, and the wastes, by-products, or residues generated, resulting, or produced therefrom.

(c) Compliance with Environmental Requirements

Without limiting the generality of Tenant's obligation to comply with laws as otherwise provided in this Lease, Tenant shall, at its sole cost and expense, comply with all present and future Environmental Requirements. Tenant shall obtain and maintain any and all necessary government permits, licenses, certifications and approvals appropriate or required for the use, handling, storage, and disposal of any Hazardous Materials used, stored, generated, transported, handled, blended, or recycled by Tenant on the Premises or Property. Landlord shall have a continuing right, without obligation, to require Tenant to obtain, and to review and inspect any and all such permits, licenses, certifications and approvals, together with copies of any and all Hazardous Materials management plans and programs, any and all Hazardous Materials risk management and pollution prevention programs, and any and all Hazardous Materials emergency response and employee training programs respecting Tenant's use of Hazardous Materials. Upon request of Landlord, Tenant shall deliver to Landlord, a narrative description explaining the nature and scope of Tenant's activities involving Hazardous Materials and showing to Landlord's satisfaction compliance with all Environmental Requirements and the terms of this Lease.

(d) Notice of Discharge

Unless Tenant is required by law to give earlier notice to Landlord, Tenant shall notify Landlord in writing as soon as possible but in no event later than five (5) days after (1) the occurrence of any spill, discharge, leak, seep or any other release of any Hazardous Material on, under, from or about the Premises or Property directly or indirectly caused by Tenant, its agents, employees, contractors or invitees, regardless of the quantity of any such spill, discharge, leak, seep or release of Hazardous Material, or (2) Tenant becomes aware of any regulatory inquiries, inspections, investigations, directives, or any cleanup, compliance or abatement proceedings (including any threatened or potential investigations or proceedings), or claims by any third parties relating to any Hazardous Materials in, on, under, from or about the Premises or Property. Landlord shall have the right to appear at and participate in, any and all legal or other administrative proceedings concerning the release of any Hazardous Materials on, under, from or about the Premises or Property.

(e) Remedial Action

If any spill, discharge, leak, seep or any other release of any Hazardous Material on, under, from or about the Premises or Property shall occur as a direct or indirect result of the actions of Tenant, its agents, employees, contractors or invitees, in addition to notifying Landlord as specified herein, Tenant, at its own sole cost and expense, shall (1) immediately comply with any and all reporting requirements imposed pursuant to any and all Environmental Requirements, (2) provide a written certification to Landlord indicating that Tenant has complied with all applicable reporting requirements, (3) take any and all necessary investigation, corrective and remedial action in accordance with any and all applicable Environmental Requirements, utilizing an environmental consultant approved by Landlord, and (4) take any such additional investigative, remedial and corrective actions as Landlord shall in its sole discretion deem necessary. Landlord may, as required by any and all Environmental Requirements, report the unauthorized spill, discharge, leak, seep or any other unauthorized release of any Hazardous Material to the appropriate regulatory agencies, and, if caused directly or indirectly by the acts of Tenant, its agents, employees, contractors or invitees, identifying the Tenant as the responsible party. Tenant shall deliver to Landlord copies of all administrative orders, notices, demands, directives or other communications directed to Tenant from any governmental authority in respect of any release, discharge, or spill of any Hazardous Material on, under, from, or about the Premises or Property, together with copies of all investigation, assessment, and remediation plans and reports prepared by or on behalf of Tenant in response to any such regulatory order or directive.

(f) Landlord Access

Landlord shall have access to, and a right to perform inspections and tests of, the Premises to determine Tenant's compliance with Environmental Requirements, its obligations under this Section 14, or the environmental condition of the Premises. Access shall be granted to Landlord upon Landlord's prior notice to Tenant and at such times so as to minimize, so far as may be reasonable under the circumstances, any disturbance to Tenant's operations. Such inspections and tests shall be conducted at Tenant's expense. Landlord's receipt of or satisfaction with any environmental assessment in no way waives any rights that Landlord holds against Tenant. Without limiting the foregoing, Landlord may separately engage its own environmental consultant or consultants at Tenant's expense to investigate and advise Landlord respecting any release, discharge, or spill of Hazardous Materials on, under, from, or about the Premises or Property, or to independently investigate any regulatory inquiries, directives, or investigations regarding Tenant's use, handling, storage, or disposal of Hazardous Materials. Landlord may, by written notice to Tenant, declare any release, discharge, spill, of Hazardous Materials on, under, from, or about the Premises, Building or Property that was caused directly or indirectly by the acts of Tenant, its agents, employees, contractors or invitees, regardless of the quantity of any such release, discharge or spill, to be a material breach of this Lease by Tenant. Landlord may, by written notice to Tenant, separately declare any improper use, storage, handling or disposal of Hazardous Materials on or about the Premises or Property by Tenant, its agents, employees, contractors or invitees, to be a separate material breach of this Lease by Tenant. Tenant shall not conduct any invasive environmental testing or investigation (including, without limitation, any testing of any soils) on or about the Property without obtaining Landlord's prior written consent, and any investigations or remediation on or about the Property shall be conducted only by a consultant approved in writing by Landlord and pursuant to a work letter approved in writing by Landlord.

(g) Landlord Right to Cure

Notwithstanding anything to the contrary contained herein, Landlord shall have the right (but not the obligation) to enter upon the Premises and cure any non-compliance by Tenant with the terms of this Section 14 or any Environmental Requirements or any release, discharge, spill, improper use, storage, handling or disposal of Hazardous Materials on, under, from, or about the Premises or Property by Tenant, its agents, employees, contractors or invitees, regardless of the quantity of any such release, discharge, spill, improper use, storage, handling or disposal of Hazardous Materials on or about the Premises or Property, the full cost of which shall be deemed to be rent and shall be due and payable by Tenant to Landlord immediately upon demand.

(h) Additional Landlord Rights

If Landlord shall determine, in its sole discretion, that the use, storage, handling or disposal by Tenant of Hazardous Materials in, on or about the Property is creating an undue risk of damage or harm to the Premises or Property, to the environment, to adjacent properties, or possible injury or disease to other tenants or other persons coming onto the Property or Premises, or any potential liability to the Landlord arising out of the use, storage, handling or disposal by Tenant of Hazardous Materials, then upon giving ten (10) days' prior written notice and opportunity for Tenant to modify its use, storage, handling or disposal practices, Landlord may (1) revoke or modify any consent previously given by Landlord allowing the use, storage, handling or disposal by Tenant of Hazardous Materials listed on the Environmental Questionnaire, in which case Tenant shall immediately cease the use, storage, handling or disposal of such Hazardous Materials on the Premises or Property, and (2) if Tenant is unwilling or unable to modify its use, storage, handling or disposal practices to meet Landlord's reasonable requirements within the ten (10) day notice and cure period, then upon sixty (60) days' prior written notice to Tenant, Landlord may elect to terminate this Lease without further liability to Tenant.

(i) Accuracy of Tenant Information

If any information provided to Landlord by Tenant on the Environmental Questionnaire, or otherwise relating to information concerning Hazardous Materials is false, incomplete, or misleading in any material respect, the same shall be deemed an event of default by Tenant under this Lease.

(j) Removal Upon Termination or Expiration

Upon termination or expiration of this Lease, Tenant, at its own cost and expense, shall cause any and all Hazardous Materials stored on, under, upon or about the Premises or Property to be removed from the Premises in a manner and to a level satisfactory to Landlord in its sole discretion, but in no event to a level and in a manner less than that which complies with all Environmental Requirements and does not limit any future uses of the Premises or require the recording of any deed restriction or notice regarding the Premises. Upon prior notice and approval by the Landlord, Tenant shall, at its own cost and expense and in compliance with all Environmental Requirements, remove any contaminated equipment, furnishings, and fixtures from the Premises including any and all Hazardous Materials storage containers and facilities from the Premises.

(k) Environmental Indemnity

Without limiting in any way Tenant's obligations under any other provision of this Lease, Tenant and its successors and assigns shall indemnify, protect, defend and hold Landlord, its partners, officers, directors, shareholders, employees, agents, lenders, contractors and each of their respective successors and assigns (collectively, the "Indemnified Parties") harmless from any and all claims, judgments, damages, penalties, enforcement actions, taxes, fines, remedial actions, liabilities, losses, costs and expenses (including, without limitation, actual attorneys' fees, litigation, arbitration and administrative proceeding costs, expert and consultant fees and laboratory costs) including, without limitation, damages arising out of the diminution in the value of the Premises or Property or any portion thereof, damages for the loss of the Premises or Property, damages arising from any adverse impact on the marketing of space in the Premises or Property, and sums paid in settlement of claims, which arise during or after the Lease Term in whole or in part as a result of the presence or suspected presence of any Hazardous Materials, in, on, under, from or about the Premises or the Property and/or other adjacent properties due to the activities, or failures to act (including, without limitation, Tenant's failure to report any spill or release to the appropriate regulatory agencies) of Tenant or its agents, employees, contractors, shareholders, partners, invitees, subtenants or assignees, on or about the Premises or Property. The obligations of Tenant under this Section 14 shall survive any termination of this Lease

15. **INJURY TO TENANT'S PROPERTY**

Landlord shall not be liable for any injury to the goods, stock, merchandise, or any other property of Tenant or to any person in or upon the Premises or to the leasehold improvements in the Premises resulting from fire or collapse of the Building or any portion thereof or any other cause, including but not limited to damage by water or gas, or by reason of any electrical apparatus in or about the Premises. Tenant shall carry adequate insurance coverage at its sole cost and expense to cover the risks described in this section.

16. DAMAGE OR DESTRUCTION

(a) Partial Destruction

If the Premises shall be partially damaged by fire or other cause, and Section 16(b) below does not apply, the damages to the Premises shall be repaired by Landlord, and all Base Rent until such repair shall be made shall be apportioned according to the part of the Premises that is usable by Tenant, except when such damage occurs because of the fault of Tenant. The repairs shall be accomplished with all reasonable dispatch. Landlord shall bear the cost of such repairs, unless the damage occurred from a risk that is not covered by Landlord's applicable property insurance policy, unless the damage is the result of the fault of Tenant, in which event Tenant shall bear the expense of the repairs.

(b) Substantial Damage

If the Property, Building, Premises or any of them are twenty-five percent (25%) or more destroyed during the Term by any cause and rendered reasonably unusable by Tenant, Landlord may elect to terminate the Lease as of the date of damage or destruction by notice given to Tenant in writing not more than sixty (60) days following the date of damage. In such event all rights and obligations of the parties shall cease as of the date of termination, except for any obligation that expressly survives the termination of this Lease. In the event the Property, Building, Premises or any of them are twenty-five percent (25%) or more destroyed during the final year of the Term by any cause and rendered reasonably unusable by Tenant, either party may elect to terminate the Lease as of the date of damage or destruction by notice given to the other party in writing not more than sixty (60) days following the date of damage. In the absence of an election to terminate, Landlord shall proceed to restore the Premises, if damaged, to substantially the same form as prior to the damage or destruction, so as to provide Tenant usable space equivalent in quantity and character to that before the damage or destruction. Work shall be commenced as soon as reasonably practicable, and thereafter proceed without interruption, except for work stoppages on account of matters beyond the reasonable control of Landlord. From the date of damage until the Premises are restored or repaired, Base Rent shall be abated or apportioned according to the part of the Premises usable by Tenant, unless the damage occurred because of the fault of Tenant. Landlord shall bear the cost of such repairs unless the damage occurred from a risk that would not be covered by a standard fire insurance policy with an endorsement for extended coverage, including sprinkler leakage, of if the damage is the result of the fault of Tenant, in which event Tenant shall bear the expense of the repairs.

(c) Restoration

If the Premises are to be restored by Landlord as above provided in this Section 16, Tenant, at its expense, shall be responsible for the repair and restoration of the restrooms, together with Tenant's stock in trade, trade fixtures, furnishings, and equipment; and Tenant shall commence the installation of the same promptly upon delivery to it of possession of the Premises and Tenant shall diligently prosecute such installation to completion.

17. EMINENT DOMAIN

(a) Partial Taking

If a portion of the Premises is condemned and neither Section 17(b) nor Section 17(c) apply, the Lease shall continue in effect. Landlord shall be entitled to all the proceeds of condemnation, and Tenant shall have no claim against Landlord as a result of condemnation. Landlord shall proceed as soon as reasonably practicable to make such repairs and alterations to the Premises as are necessary to restore the remaining Premises to the condition as comparable as reasonably practicable to that existing at the time of condemnation. Base Rent shall be abated to the extent that the Premises are untenantable during the period of alteration and repair. After the date on which title vests in the condemning authority, Base Rent shall be reduced commensurately with the reduction in the objective value of the Premises as an economic unit on account of the partial taking. Tenant shall have the right or claim the portion of the award attributable to the value of Tenant's Lease, but separate from any award to Landlord based upon the value of the Premises or the Building or Property.

(b) Substantial Taking of the Property

If a condemning authority takes any substantial part of the Property or any substantial part of the Building or the Premises, and the Premises is rendered reasonably unusable by Tenant the Lease shall, at the option of Landlord, terminate as of the date title vests in the condemning authority. In such event all rights and obligations of the parties shall cease as of the date of termination. Landlord shall be entitled to all of the proceeds of condemnation, and Tenant shall have no claim against Landlord as a result of the condemnation. Tenant shall have the right or claim the portion of the award attributable to the value of Tenant's Lease, but separate from any award to Landlord based upon the value of the Premises or the Building or Property. Tenant shall be free to make a separate claim for its moving expenses and lost trade fixtures so long as such claim does not interfere with or reduce Landlord's claim or award. For the purposes of this Section 17(b), a "substantial" part shall mean twenty-five percent (25%) or more, or any lesser portion that leaves the Property in a condition that cannot reasonably be operated substantially as it was prior to the taking in Landlord's reasonable judgment.

(c) Substantial Taking of Premises

If a condemning authority takes all the Premises or a portion of the Premises equal to twenty-five percent (25%) more, and such taking renders the remaining Premises reasonably unsuitable for Tenant's use, Tenant shall have the option to terminate the Lease upon written notice to Landlord given within sixty (60) days of Tenant's receipt of notice of the taking. In such event, the Lease shall terminate as of the date title vests in the condemning authority. Landlord shall be entitled to all the proceeds of condemnation, and Tenant shall have no claim against Landlord as a result of the condemnation. Tenant shall be free to make a separate claim for its moving expenses and lost trade fixtures so long as such claim does not interfere with or reduce Landlord's claim or award.

(d) Definition

Sale of all or any part of the Premises to a purchaser with the power of eminent domain in the face of a threat or probability of the exercise of the power shall be treated for the purpose of the Lease as a taking by condemnation.

18. BANKRUPTCY

Subject to Section 19, the Lease shall not be assigned or transferred voluntarily or involuntarily by operation of law. This Lease may, at the option of Landlord, be terminated, if Tenant is adjudged bankrupt or insolvent (and such case is not dismissed within 60 days), or makes an assignment for the benefit of creditors or files or is a party to the filing of a petition in bankruptcy (and case is not dismissed within 60 days), or in case a receiver or trustee is appointed to take charge of any of the assets of Tenant or sublessees or assignees in or on the Premises, and such receiver or trustee is not removed within 60 days after the date of such receiver or trustee's appointment, or in the event of judicial sale of the personal property in or on the Premises upon judgment against Tenant or any sublessees or assignee hereunder, unless such property or reasonable replacement therefor be installed on the Premises. To the extent permitted by law, this Lease or any sublease hereunder shall not be considered as an asset of a debtor-in-possession, or an asset in bankruptcy, insolvency, receivership, or other judicial proceedings. This Lease shall be considered a lease of real property in a shopping center within the meaning of Section 365(b)(3) of the U.S. Bankruptcy Code.

19. DEFAULT

The following shall be events of default:

(a) Failure of Tenant to pay any Rent or any other charge required under this Lease when due, and after five (5) days' written demand to Tenant, however, such written demand to Tenant for any nonpayment shall only be required once within any calendar year and thereafter failure to make payment when due shall constitute an event of default.

(b) Failure of Tenant to execute the documents described in Section 23 or Section 25 within the time required under such Sections; failure of Tenant to provide or maintain the insurance required of Tenant pursuant to Section 7(c); or failure of Tenant to comply with any Laws as required pursuant to Section 8 within 24 hours after written demand by Landlord.

(c) Failure of Tenant to comply with any term or condition or fulfill any obligation of the Lease (other than the failures described in Section 19(a) or Section 19(b) above) within 30 days after written notice by Landlord specifying the nature of the default with reasonable particularity. If the default is of such nature that it cannot be completely remedied within the 30-day period, this provision shall be complied with if Tenant begins correction of the default within the 30-day period and thereafter proceeds with reasonable diligence and in good faith to effect the remedy as soon as practicable. Landlord shall not be obligated to give written notice for the same type of default more than twice; at Landlord's option, a failure to perform an obligation after the second (2nd) notice shall be an automatic event of default, without notice or any opportunity to cure.

(d) The abandonment of the Premises by Tenant.

(e) The bankruptcy or insolvency of Tenant or the occurrence of other acts specified in Section 18 of this Lease that give Landlord the option to terminate.

(f) The assignment or subletting or purported assignment or subletting of Tenant's interest under this Lease in violation of Section 22.

20. REMEDIES ON DEFAULT

In the event of a default, Landlord may, at Landlord's option, exercise any one or more of the rights and remedies available to a landlord in the state in which the Premises are located to redress such default, consecutively or concurrently, including the following:

(a) Landlord may elect to terminate Tenant's tenancy and right to possession of the Premises or any portion thereof by written notice to Tenant. Upon any such termination, Landlord may re-enter, take possession of the Premises, and remove any persons or property by legal action or by self-help with the use of reasonable force and without liability for damages. Landlord shall have the right to retain or dispose of the personal property belonging to Tenant that is on the Premises at the time of re-entry in Landlord's sole discretion, or the right to such other security interest therein as the law may permit, to secure all sums due or that become due to Landlord under this Lease, also in Landlord's sole discretion.

(b) Following re-entry by Landlord, Landlord may relet the Premises for a term longer or shorter than the Term and upon any reasonable terms, including the granting of rent concessions to the new tenant that are in accordance with what is reasonable for then-prevailing market conditions. Landlord may alter, refurbish, or otherwise change the character or use of the Premises in connection with such reletting. Landlord shall not be required to relet for any use or purpose that Landlord may reasonably consider injurious to its property or to any tenant Landlord may reasonably consider objectionable. No such reletting by Landlord following a default by Tenant shall be construed as an acceptance of the surrender of the Premises. If rent received upon such reletting exceeds the Rent received under this Lease, Tenant shall have no claim to the excess.

(c) Landlord shall have the right to recover from Tenant the following damages:

i. All unpaid or other charges for the period prior to re-entry, plus interest at the greater of twelve percent (12%) per annum or a rate equal to five (5) percentage points in excess of the discount rate, including any surcharge on the discount rate, on ninety (90)-day commercial paper declared by the Federal Reserve Bank in the Federal Reserve District in which Portland, Oregon, is located on the date the charge was due (the "Interest Rate").

ii. An amount equal to the Rent lost during any period during which the Premises are not relet, if Landlord uses commercially reasonable efforts to relet the Premises. If Landlord lists the Premises with a real estate broker experienced in leasing commercial property in the metropolitan area in which the Premises are located, such listing shall constitute the taking of commercially reasonable efforts to relet the Premises.

iii. All costs incurred in reletting or attempting to relet the Premises, including but without limitation, the cost of clean-up and repair in preparation for a new tenant, including any improvements to the Premises, brokerage fees, free rent or rent concessions for the new tenant(s), and the cost of correcting any defaults or restoring any alterations and the amount of any real estate commissions and advertising expenses.

iv. The amount of any Rent concession granted by Landlord to Tenant and the unamortized cost of any brokerage commission paid by Landlord in connection with entry into this Lease.

v. The full amount of the Tenant Improvement Allowance (as defined in the Work Letter attached hereto as Exhibit B).

vi. The difference between the Rent reserved under this Lease and the amount actually received by Landlord after reletting, as such amounts accrue.

vii. Reasonable attorney fees and legal expenses incurred in connection with the default, whether or not any litigation is commenced.

(d) Landlord may sue periodically to recover damages as they accrue throughout the Term and no action for accrued damages shall be a bar to a later action for damages subsequently accruing. To avoid a multiplicity of actions, Landlord may obtain a decree of specific performance requiring Tenant to pay the damages stated in Section 20(c) above as they accrue. Alternatively, Landlord may elect in any one action to recover accrued damages, plus all Rent that will accrue during the period it is reasonably anticipated it will take Landlord to relet the Premises, using commercially reasonable efforts, plus damages attributable to the remaining Term equal to the difference between the Rent under this Lease and the reasonable rental value of the Premises for the remainder of the Term.

(e) Landlord shall be entitled to recover attorney fees reasonably incurred in connection with the default, whether or not litigation is commenced. Landlord may sue to recover such amounts as they accrue, and no one action for accrued damages shall bar a later action for damages subsequently accruing.

(f) The foregoing remedies shall not be exclusive but shall be in addition to all other remedies and rights provided under applicable law, and no election to pursue one remedy shall preclude resort to another remedy.

21. SURRENDER AT EXPIRATION

(a) Condition of Premises

Upon expiration of the Term or earlier termination, Tenant shall deliver all keys to Landlord and surrender the Premises in good condition and broom clean, subject to ordinary wear and tear. Improvements, supplemental HVAC units installed by Tenant, alterations, wiring, cables, or conduit constructed by or for Tenant shall not be removed or restored to the original condition unless the terms of Landlord's consent provides otherwise, in which event Tenant shall remove those designated by Landlord for removal and restore the Premises at Tenant's sole cost and expense. Unless required in Landlord's written consent to approved Tenant Improvement Work as set forth in the Work Letter attached as Exhibit B, Tenant shall not be required to remove any supplemental HVAC units, HVAC ducting, custom lighting, flooring, ceiling grid or tiles or to paint or re-carpet the Premises. Wear from ordinary use for the purpose for which the Premises were let need not be restored, but all repairs for which Tenant is responsible shall be completed to the latest practical date prior to such surrender. Tenant's obligations under this Section 21 shall be subject to the provisions of Section 16 relating to damages or destruction.

(b) Fixtures

i. All fixtures placed upon the Premises during the Term or located on the Premises as of the Commencement Date, other than Tenant's trade fixtures, shall, at Landlord option, become the property of Landlord. Movable furniture, decorations, floor covering other than hard surface bonded or adhesively fixed flooring, curtains, drapes, blinds, furnishings and trade fixtures shall remain the property of Tenant if placed on the Premises by Tenant; provided, however, if Landlord granted Tenant an allowance for improvements, installation, floor coverings, curtains, drapes, blinds or other items, such items shall at Landlord's option become the property of Landlord, notwithstanding the installation thereof by Tenant.

ii. Tenant shall remove all furnishings, furniture, and trade fixtures that remain the property of Tenant and shall repair any damage resulting from the removal. If Tenant fails to do so, this shall be an abandonment of the property, and following 10 days' written notice, Landlord may remove or dispose of it in any manner without liability. Tenant shall be liable to Landlord for the cost of removal and transportation to storage, with interest on all such expenses from the date of expenditure at the Interest Rate.

iii. The time for removal of any property or fixtures that Tenant is required to remove from the Premises upon termination shall be as follows:

(1) As to all items other than those described in Section 21(b)iii(2) below, on or before the date the Lease terminates because of expiration of the Term or because of a default under Section 19.

(2) Within ten (10) days after written notice from Landlord requiring such removal where the property to be removed is a fixture that Tenant is not required to remove except after such notice by Landlord, and such date would fall after the date on which Tenant would be required to remove other property.

(c) Holdover

If Tenant fails to vacate the Premises after the termination of the Lease Term, Tenant shall be, at Landlord's sole election, a tenant at will or at sufferance, and Tenant shall pay, in addition to any other rent or other sums then due Landlord, Base Rent equal to 150% of the then-current Base Rent, computed on a monthly basis for each month or part thereof during such holdover, even if Landlord consents to such holdover (which consent shall be effective only if in writing). All other payments shall continue under the terms of this Lease. Tenant shall also be liable for all Operating Expenses incurred during such holdover period. In addition, Tenant shall be liable for all damages (including attorneys' fees and expenses) of whatever type (including consequential damages) incurred by Landlord as a result of such holding over. No holding over by Tenant, whether with or without consent of Landlord, shall operate to extend this Lease except as otherwise expressly provided, and this Section 21(c) shall not be construed as consent for Tenant to retain possession of the Premises.

22. ASSIGNMENT AND SUBLETTING

(a) **Landlord's Consent**

Tenant shall not, either voluntarily or by operation of law, sell, assign, or transfer this Lease or sublet the Premises or any part thereof, or assign any right to use the Premises or any part thereof (each a "Transfer") without the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed, and any attempt to do so without such prior written consent shall be void and, at Landlord's option, shall terminate this Lease. If Tenant requests Landlord's consent to any Transfer, Tenant shall promptly provide Landlord with a copy of the proposed agreement between Tenant and its proposed transferee and with all such other information concerning the business and financial affairs of such proposed transferee as Landlord may request. Landlord may withhold such consent unless the proposed transferee (i) is satisfactory to Landlord as to credit, managerial experience, net worth, character, and business or professional standing, (ii) is a person or entity whose possession of the Premises would not be inconsistent with Landlord's commitments with other tenants or with the mix of uses Landlord desires at the Property, (iii) will occupy the Premises for a use that is within any ofthe uses authorized under this Lease(iii) expressly assumes and agrees in writing to be bound by and directly responsible for all Tenant's obligations hereunder, and (iv) will conduct a business that does not adversely impact the use of the Property's common areas. Landlord's consent to any such Transfer shall in no event release Tenant from its liabilities or obligations hereunder, including any renewal term, nor relieve Tenant from the requirement of obtaining Landlord's prior written consent to any further Transfer. Landlord's acceptance of rent from any other person shall not be deemed to be a waiver by Landlord of any provision of this Lease or a consent to any Transfer. No modification, amendment, assignment, or sublease shall release Tenant, any assignee, or any guarantor of its liabilities or obligations under this Lease.

(b) Payment to Landlord and Termination of Lease

i. Upon submitting a request for Landlord's consent to a Transfer, Tenant shall pay to Landlord, as a condition to its consideration of any such request a fee in the amount of One Thousand Five Hundred No/100 Dollars ($1,500.00) to cover Landlord's administrative expenses, which fee shall be retained by Landlord for any related purposes, regardless of whether such consent is granted. Tenant shall also be responsible to promptly pay all Landlord's reasonable legal fees and expenses in connection with any Transfer request, regardless of whether Landlord's consent is given and shall remit a deposit of Two Thousand Five Hundred No/100 Dollars ($2,500.00) toward Landlord's legal fees together with Tenant's request for Landlord's consent to a Transfer. Landlord's legal fees related to such consent to Transfer shall not exceed $3,000.00.

ii. If any such proposed Transfer provides for the payment of, or if Tenant otherwise receives, rent, additional rent, or other consideration for such Transfer that is in excess of the Rent and all other amounts Tenant is required to pay under this Lease (regardless of whether such excess is payable on a lump-sum basis or over a term), then in the event Landlord grants its consent to such proposed Transfer, Tenant shall pay Landlord fifty percent (50%) of the amount of such excess as it is received by Tenant. Any violation of this paragraph shall be deemed a material and noncurable breach of this Lease.

iii. If Tenant proposes a sublease or assignment of the entire Premises for the remainder of the Lease Term, Landlord shall have the option to terminate this Lease and deal directly with the proposed sublessee, assignee, or any third party with regard to the Premises.

iv. If Tenant is a corporation, an unincorporated association, a partnership, a limited partnership, or a limited liability company, the transfer, assignment or hypothecation of any stock or interest in such entity in the aggregate in excess of fifty percent (50%) shall be deemed a Transfer of this Lease within the meaning and provisions of this Section 22.

23. SUBORDINATION

Tenant's interest hereunder shall be subject and subordinate to all mortgages, trust deeds, and other financing and security instruments in place upon the Commencement Date or placed on the Premises by Landlord from time to time (hereafter "Mortgage"), except that no assignment or transfer of Landlord's rights hereunder to a lending institution as collateral security in connection with a Mortgage shall affect Tenant's right to possession, use, and occupancy of the Premises so long as Tenant shall not be in default under any of the terms and conditions of this Lease. The provisions of this Section 23 shall be self-operating. Nevertheless, Tenant agrees to execute, acknowledge and deliver to Landlord within ten (10) days after Landlord's written request, a reasonable instrument in recordable form that expressly subordinates Tenant's interest hereunder to the interests of the holder of any Mortgage, and that includes any other reasonable provisions requested by the holder or prospective holder of any Mortgage. At Landlord's request, Tenant agrees to sign an authorization for Landlord to conduct a check of Tenant's credit as requested by Landlord from time to time. Landlord shall not seek a subordination non-disturbance agreement from Landlord's lender unless requested in writing by Tenant and Tenant pays any out of pocket expenses of Landlord to secure the same.

24. TRANSFER OF THE PROPERTY

If the Property is sold or otherwise transferred by Landlord or any successor to Landlord, subject to non-disturbance of Tenant's tenancy, Tenant shall attorn to the purchaser or transferee and recognize it as the landlord under this Lease, and, provided the purchaser or transferee assumes all obligations under this Lease thereafter accruing, the transferor shall have no further liability hereunder.

25. ESTOPPEL CERTIFICATE

Tenant shall from time to time, upon not less than ten (10) days' prior notice, submit to Landlord, or to any person designated by Landlord, a statement in writing, in the form submitted to Tenant by Landlord, certifying that this Lease is unmodified and in full force and effect (or if there have been modifications, identifying the same by the date thereof and specifying the nature thereof), that to the knowledge of Tenant no uncured default exists hereunder (or if such uncured default does exist, specifying the same), the dates to which the Rent and other sums and charges payable hereunder have been paid, that Tenant has no claims against Landlord and no defenses or offsets to rental except for the continuing obligations under this Lease (or if Tenant has any such claims, defenses, or offsets, specifying the same), and any other information concerning this Lease as Landlord reasonably requests.

26. PERFORMANCE BY LANDLORD

Landlord shall not be deemed in default for the nonperformance or for any interruption or delay in performance of any of the terms, covenants, and conditions of this Lease if the same shall be due to any labor dispute, strike, lockout, civil commotion, or like operation, invasion, rebellion, hostilities, military or usurped power, sabotage, governmental regulations or controls, inability to obtain labor, services or materials, through acts of God, or other cause beyond the reasonable control of Landlord, providing such cause is not due to the willful act or neglect of Landlord.

27. LANDLORD'S RIGHT TO CURE DEFAULT

If Tenant shall fail to perform any of the covenants or obligations to be performed by Tenant, Landlord, in addition to all other remedies provided herein, shall have the option (but not the obligation) to cure such failure to perform after fifteen (15) days' written notice to Tenant. All Landlord's expenditures incurred to correct the failure to perform shall be reimbursed by Tenant upon demand with interest from the date of expenditure at the legal rate of interest if not defined. Landlord's right to cure Tenant's failure to perform is for the sole protection of Landlord and the existence of this right shall not release Tenant from the obligation to perform all the covenants herein provided to be performed by Tenant, or deprive Landlord of any other right Landlord may have by reason of default of this Lease by Tenant.

28. INSPECTION

Landlord, Landlord's agents, and representatives, shall have the right to enter upon the Premises at any time in the event of emergency and, in other events, at reasonable times after at least 24 hour's prior verbal or email notice for the purpose of inspecting the same, for the purpose of making repairs or improvements to the Premises or the Building, for showing the Premises for rent during the final one hundred eighty (180) days of the Term, or for any other lawful purpose. Notwithstanding anything to the contrary in this Lease, with respect to any entry by Landlord into the Premises, Landlord shall (a) reasonably accommodate Tenant's security measures to protect Tenant's confidential information and sensitive property; and (b) be accompanied by a Tenant representative at all times (except in an emergency that poses an imminent threat of harm to the Premises or people or property in or about the Premises) provided that Tenant makes such a representative reasonably available.

29. FOR SALE AND FOR RENT SIGNS

During the period of one hundred eighty (180) days prior to the date for the termination of this Lease, Landlord may post on the Premises or in the windows thereof signs of moderate size notifying the public that the Premises are "for sale" or "for rent" or "for lease."

30. ATTORNEY FEES

In the event a suit, action, arbitration, or other proceeding of any nature whatsoever, including without limitation any proceeding under the U.S. Bankruptcy Code, is instituted, or the services of an attorney are retained to interpret or enforce any provision of this Lease or with respect to any dispute relating to this Lease, the prevailing or nondefaulting party shall be entitled to recover from the losing or defaulting party its attorneys', paralegals', accountants', and other experts' fees and all other fees, costs, and expenses actually incurred and reasonably necessary in connection therewith. In the event of suit, action, arbitration, or other proceeding, the amount thereof shall be determined by the judge or arbitrator, shall include fees and expenses incurred on any appeal or review, and shall be in addition to all other amounts provided by law.

31. NOTICES

Notices between the parties relating to this Lease shall be in writing, effective when delivered during business hours by email, hand delivery, private courier, nationally-recognized overnight courier or regular or certified U.S. mail. Notices shall be delivered postage prepaid, to the address or email address for the party stated in the Basic Lease Terms or to such other address as either party may specify by notice to the other. Notice to Tenant may always be delivered to the Premises. Rent shall be payable to Landlord at the same address stated in the Basic Lease Terms (or at such other address as Landlord may specify by notice to Tenant) and in the same manner, but shall be considered paid only when received. Notwithstanding the foregoing, notice by email shall be effective on the date transmitted only with proof of transmission, and only if a copy of such notice is also sent on the same business day by one of the other notice methods permitted under this Section 31.

32. BROKERS

Tenant covenants, warrants, and represents that it has not engaged any broker, agent, or finder who would be entitled to any commission or fee in connection with the negotiation and execution of this Lease, except as set forth in the Basic Lease Terms. Tenant agrees to indemnify and hold harmless Landlord against and from any claims for any brokerage commissions and all costs, expenses, and liabilities in connection therewith, including attorney fees and expenses, arising out of any charge or claim for a commission or fee by any broker, agent, or finder on the basis of any agreements made or alleged to have been made by or on behalf of Tenant, except for brokers listed on the Summary of Fundamental Lease Provisions. The provisions of this Section 32 shall not apply to any brokers with whom Landlord has an express written brokerage agreement.

33. LATE CHARGES

Tenant acknowledges that late payment by Tenant to Landlord of any Rent or other charge due hereunder will cause Landlord to incur costs not contemplated by this Lease, the exact amount of which will be extremely difficult to ascertain. Such costs may include, without limitation, processing and accounting charges and late charges that may be imposed on Landlord under the terms of any Mortgage. Accordingly, if any Rent or other charge is not received by Landlord on or before the date it is due, Tenant shall pay to Landlord a late charge equal to the greater of five percent (5%) of the overdue amount or Two Hundred Fifty and No/100 Dollars ($250.00). The parties hereby agree that such late charge represents a fair and reasonable estimate of the costs incurred by Landlord by reason of the late payment by Tenant. Acceptance of any late charge by Landlord shall in no event constitute a waiver of Tenant's default with respect to the overdue amount in question, nor prevent Landlord from exercising any of the other rights and remedies granted hereunder.

34. NO PERSONAL LIABILITY; DAMAGE LIMITATION

The liability of Landlord to Tenant for any default, breach or non-performance by Landlord under the terms of this Lease shall be limited to the interest of Landlord in the Building and the Property, and neither Landlord nor any of its owners, members, managers, shareholders, officers, directors, partners, principals, employees, or agents (collectively, "Landlord Parties") shall be liable for any deficiency; nor shall any of the Landlord Parties be responsible, liable, or obligated, under any circumstances, to pay special, consequential, incidental, exemplary or punitive damages, or to profits, lost income or lost revenue.

35. MISCELLANEOUS PROVISIONS

(a) This Lease does not grant any rights of access to light or air over any part of the Property.

(b) Time is of the essence of this Lease.

(c) The acceptance by Landlord of any Rent or other benefits under this Lease shall not constitute a waiver of any default.

(d) Any waiver by Landlord of the strict performance of any of the provisions of this Lease shall not be deemed to be a waiver of subsequent breaches of the same character or of a different character, occurring either before or subsequent to such waiver, and shall not prejudice Landlord's right to require strict performance of the same provision in the future or of any other provision of this Lease.

(e) This Lease contains the entire agreement of the parties and supersedes all prior written and oral agreements and representations and there are no implied covenants or other agreements between the parties, except as expressly set forth in this Lease.

(f) Neither Landlord nor Tenant is relying on any representations except as expressly set forth in this Lease.

(g) The parties acknowledge and agree that any calculations of square footage in the Premises and on the Property are approximations. Except as provided herein, no recalculation of square footage shall affect the obligations of Tenant under this Lease, including without limitation, the amount of Base Rent or other Rent payable by Tenant under this Lease.

(h) This Lease shall not be amended or modified except by agreement in writing, signed by the parties hereto.

(i) Subject to the limitations on the assignment or transfer of Tenant's interest in this Lease, this Lease shall be binding upon and inure to the benefit of the parties, their respective heirs, personal representatives, successors, and assigns.

(j) No remedy herein conferred upon or reserved to Landlord or Tenant shall be exclusive of any other remedy herein provided or provided by law, but each remedy shall be cumulative.

(k) In interpreting or construing this Lease, it is understood that Tenant may be more than one person, that if the context so requires, the singular pronoun shall be taken to mean and include the plural, and that generally all grammatical changes shall be made, assumed, and implied to make the provisions hereof apply equally to corporations, partnerships, limited liability companies, and individuals.

(l) Section headings are for convenience and shall not affect any of the provisions of this Lease.

(m) If any provision of this Lease or the application thereof to any person or circumstance is, at any time or to any extent, held to be invalid or unenforceable, the remainder of this Lease, or the application of such provision to persons or circumstances other than those to which it is held invalid or unenforceable, shall not be affected thereby, and each provision of this Lease shall be valid and enforceable to the fullest extent permitted by law.

(n) All agreements (including, but not limited to, indemnification agreements) set forth in this Lease, the full performance of which are not required prior to the expiration or earlier termination of this Lease, shall survive the expiration or earlier termination of this Lease and be fully enforceable thereafter.

(o) Unless otherwise stated in this Lease, the Premises are leased AS-IS in the condition now existing, with no alterations or other work to be performed by Landlord.

(p) Whenever a date or deadline for performance falls on a Saturday, Sunday or legal holiday in the state in which the Premises are located, the date for performance for any such obligation shall be moved to the next date that is not a Saturday, Sunday or a legal holiday in the state in which the Premises are located.

(q) The titles to the Sections of this Lease are descriptive only and are not intended to change or influence the meaning of any Section or to be part of this Lease.

(r) Except where otherwise provided in this Lease, either party may withhold its consent for any reason or for no reason whenever that party's consent is required under this Lease.

(s) This Lease may be executed in any number of counterparts, each of which when executed shall be deemed to be an original but all of which taken together shall constitute one agreement binding on all parties. This Lease may be executed by affixing an electronic signature by DocuSign or the equivalent electronic signature and digital transaction management service. Electronic delivery of documents by facsimile or email, including without limitation the delivery of .PDF, .JPG or the equivalent, shall be legally sufficient to bind the party the same as delivery of an original.

36. QUIET ENJOYMENT

Landlord agrees that Tenant, upon paying the Rent and other payments herein reserved and on performing the terms contained in this Lease shall, during the Term of this Lease, peaceably and quietly have, hold, and enjoy the Premises subject to the terms, covenants, conditions, provisions, and agreements hereof, free from hindrance by Landlord, any other tenant or user of the Property, or any other person claiming by, through, or under Landlord ("Quiet Enjoyment").

37. FORCE MAJEURE

Except for the Tenant's payment of Rent and all other sums payable to Landlord and the timely giving of notices hereunder relating to Tenant's Termination Notice, if performance by either party of any portion of this Lease is prevented, delayed or made impossible by prevention, delay, or stoppage caused by governmental approvals, war, acts of terrorism, strikes, lockouts, labor disputes, acts of God, inability to obtain services, labor or materials or reasonable substitutes for those items, governmental actions, civil commotions, fire or other casualty, incidence of disease or other illness that reaches epidemic or pandemic proportions (expressly including COVID-19), or other causes beyond the reasonable control of such party (each a "Force Majeure Event"), performance by such party for the period of the Force Majeure Event is excused. For avoidance of doubt, no occurrence of a Force Majeure Event shall excuse or delay Tenant's payment of Rent or other sums payable to Landlord.

38. ANTI-TERRORISM LAW

(a) Tenant represents and warrants to Landlord as follows:

i. Neither Tenant, its constituents, or affiliates, nor any of their respective agents (collectively, the "Tenant Parties") is in violation of any law relating to terrorism or money laundering, including, but not limited to, Executive Order No. 13224 on Terrorist Financing, the U.S. Bank Secrecy Act, as amended by the Patriot Act, the Trading with the Enemy Act, the International Emergency Economic Powers Act and all regulations promulgated thereunder, all as amended from time to time (collectively, "Anti-Terrorism Law").

ii. No action, proceeding, investigation, charge, claim, report, or notice has been filed, commenced, or threatened against any of the Tenant Parties alleging any violation of any Anti-Terrorism Law.

iii. None of the Tenant Parties has, after due inquiry, knowledge of any fact, event, circumstance, situation or condition that could reasonably be expected to result in any action, proceeding, investigation, charge, claim, report, notice, or penalty being filed, commenced, threatened, or imposed against any of them relating to any violation of or failure to comply with any Anti-Terrorism Law.

iv. None of the Tenant Parties is a "Prohibited Person." A Prohibited Person means any of the following:

(1) A person or entity that is "specially designated" on the most current list published by the U.S. Treasury Department Office of Foreign Asset Control or that is owned, controlled by, or acting for or on behalf of any such person or entity;

(2) A person or entity with whom Landlord is prohibited from dealing by any Anti-Terrorism Law:

(3) A person or entity that commits, threatens, or conspires to commit or supports "terrorism," as defined in any Anti-Terrorism Law.

v. None of the Parties:

(1) Conducts any business or transactions or makes or receives any contribution of funds, goods, or services in violation of any Anti-Terrorism Law:

(2) Engages in or conspires to engage in any transaction that evades or avoids, has the purpose of evading or avoiding, or attempts to violate any of the prohibitions of any Anti-Terrorism Law.

(b) Tenant covenants that it shall not:

i. Conduct any business or transaction or make or receive any contribution of funds, goods, or services in violation of any Anti-Terrorism Law;

ii. Engage in or conspire to engage in any transaction that evades or avoids, has the purpose of evading or avoiding, or attempts to violate any of the prohibitions of any Anti-Terrorism Law.

iii. Tenant agrees promptly to deliver to Landlord (but in any event within ten (10) days of Landlord's written request) any certification or other evidence requested from time to time by Landlord, in its reasonable discretion, confirming Tenant's compliance with the foregoing.

39. FINANCIAL STATEMENTS

Within 30 days after Landlord's request, and no more than once per annum, Tenant will furnish Tenant's most recent annual financial statements to Landlord as may have been prepared by an independent certified public accountant or, failing those, Tenant's internally prepared financial statements. Landlord will not disclose any aspect of Tenant's financial statements except (a) to Landlord's lenders or prospective purchasers of the Building who have executed a purchase contract with Landlord, (b) in litigation between Landlord and Tenant, or (c) if required by any court order.

40. SIGNAGE

Landlord need not consent to any sign that fails to conform to the design concept of the Property, and with all Landlord's signage policies and procedures, if any, as may be established by Landlord. Prior to installing any signs, Tenant shall submit detailed color drawings to Landlord for approval indicating the location, size, layout, design, and color of proposed sign, including all lettering and graphics. Electrical service to all signs shall be at Tenant's sole expense. Free standing or monument signs are prohibited. Notwithstanding Landlord's consent to any signs, Tenant shall (i) comply with all Laws and obtain any necessary permits and governmental approvals related to such signs at its own cost and expense, and (ii) on or before Lease expiration or earlier termination, remove all such signs and repair any damage to the Premises caused thereby, at Tenant's sole cost and expense;

41. WAIVER OF JURY TRIAL

LANDLORD AND TENANT KNOWINGLY, INTENTIONALLY, AND VOLUNTARILY WAIVE TRIAL BY JURY IN ANY ACTION OR PROCEEDING BROUGHT BY EITHER PARTY AGAINST THE OTHER IN ANY MATTER ARISING OUT OF THIS LEASE, THE RELATIONSHIP OF LANDLORD AND TENANT, TENANT'S USE OR OCCUPANCY OF THE PREMISES, OR ANY CLAIM OF INJURY OR DAMAGE.

42. RENEWAL OPTION MARKET RATE ADJUSTMENT

Market Rate Adjustments under this Lease shall be made as follows:

(a) The Base Rent for the first year of each Renewal Term (if validly exercised by Tenant) shall be the then current Market Rate as provided herein. A "Market Rate Adjustment" to the Base Rent for the first Lease Year of any Renewal Term shall be the greater of (1) the then fair market rent in the Hillsboro/Hwy 26 Corridor Area, and (2) the Base Rent for the immediately preceding Lease Year. Under no circumstances shall the Base Rent decrease in successive years.

(b) The Market Rate Adjustment to Base Rent shall be provided by written notice from Landlord to Tenant ("Rent Adjustment Notice") within the time specified in Section 1.T. If Tenant fails to timely object to the Rent Adjustment as described in Section 1.T, the proposed adjustment shall be deemed accepted by Tenant.

(c) If Tenant timely objects to the Rent Adjustment Notice, then within ten (10) days thereafter each party, at its own cost and by giving notice to the other party, shall select an independent member of the National Association of Realtors (a "Realtor") having at least ten (10) years' experience in the leasing of flex office space in the Hillsboro, Oregon area and licensed in the State of Oregon, to evaluate and set Base Rent for the Lease Year to be so determined. If a party does not appoint a Realtor within such 10-day period, the single Realtor appointed shall be the sole Realtor and shall set Base Rent for the Lease Year to be so determined. If each party shall have so appointed a Realtor, the two (2) Realtors shall meet promptly and attempt to set the Base Rent for the Lease Year to be so determined. If the two (2) Realtors are unable to agree within thirty (30) days after the second Realtor has been appointed, they shall attempt to select a third Realtor ("neutral Realtor") meeting the qualifications herein stated within ten (10) days after the last day the two (2) Realtors are given to set Base Rent. If the two (2) Realtors are unable to agree on the third Realtor within such ten (10) day period, either of the parties to this Lease, by giving five (5) days' notice to the other party, may apply to the Arbitration Service of Portland for the selection of a third Realtor meeting the qualifications stated in this Section. Each of the parties shall pay the fees and costs of their respectively-appointed Realtor, and each party shall bear one-half (1/2) of the fees and costs of appointing the neutral Realtor, paying the neutral Realtor's fee and paying the Arbitration Service of Portland fee (if any). The neutral Realtor, however selected, shall have the same qualifications stated herein for each Realtor and shall also be a person who has not previously acted in any capacity for either party.

(d) The Market Rate Adjustment to Base Rent shall be fixed by the Realtors in accordance with the following procedures. Each party-appointed Realtor shall state, in writing, such Realtor's determination of the Market Rate Adjustment to Base Rent supported by the reasons therefor and shall make counterpart copies for the other party-appointed Realtor and any neutral Realtor. The party-appointed Realtors shall arrange for a simultaneous exchange of their proposed Market Rate Adjustment to Base Rent determinations. The role of any neutral Realtor shall be solely to select whichever of the two (2) proposed determinations of Market Rate Adjustments to Base Rent most closely approximates the neutral Realtor's own determination of the Market Rate Adjustment to Base Rent. The neutral Realtor shall have no right to propose a middle ground or any modification of either of the two (2) proposed determinations of Market Rate Adjustments to Base Rent. The determination of Market Rate Adjustment to Base Rent the neutral Realtor chooses as that most closely approximating the neutral Realtor's determination of the Market Rate Adjustment to Base Rent shall constitute the decision of the Realtors and shall be final and binding upon the parties. The Realtors shall have no power to modify the provisions of this Lease.

(e) If for any reason the Market Rate Adjustment of Base Rent is not determined prior to the first day of the Lease Year to be so determined, this Lease shall nevertheless remain in effect, and during the interim period until such Market Rate Adjustment to Base Rent is finally determined, Tenant shall pay, as Base Rent, an amount equal to the Base Rent of the Lease Year prior to the Lease Year in question.

43. EXHIBITS AND ADDITIONAL PROVISIONS
The following Exhibit is attached hereto and incorporated as a part of this Lease:

Exhibit "A"	-	Premises
Exhibit "B"	-	Work Agreement
Exhibit "C"	-	Commencement Date Certificate
Exhibit "D"	-	Rules and Regulations
Exhibit "E"	-	Environmental Questionnaire

44. REPRESENTATION; PREPARATION
THIS LEASE, ATTACHMENTS, AND AMENDMENTS WERE PREPARED BY COUNSEL FOR LANDLORD TENANT HAS BEEN ADVISED AND HAD AN OPPORTUNITY TO SEEK INDEPENDENT COUNSEL TO REVIEW THIS LEASE, ATTACHMENTS, AND AMENDMENTS. THE RULE OF CONSTRUCTION THAT A WRITTEN AGREEMENT IS CONSTRUED AGAINST THE PARTY PREPARING OR DRAFTING SUCH AGREEMENT SHALL SPECIFICALLY NOT BE APPLICABLE TO THE INTERPRETATION OR ENFORCEMENT OF THIS LEASE, ATTACHMENTS, AND AMENDMENTS.

[Signatures on Following Page]

IN WITNESS WHEREOF, the duly authorized representatives of the parties have executed this Lease as of the day and year first written above.

LANDLORD: HILLSBORO 229 LLC,
an Oregon limited liability company

DocuSigned by:

By: ____________________
05522E2F5141449...

Printed Name: Pete Overgaag

Title: Pete Overgaag is the owner

TENANT: ACM Research, Inc.,
a Delaware Corporation

DocuSigned by:

By: David Wang
82D96D70D4A24A8...

Printed Name: David Wang

Title: CEO

Standard Form of RETAIL LEASE - MODIFIED*

EXHIBIT A
PREMISES

*Premises outlined in red.

This drawing is not to scale and is for illustrative purposes only.

EXHIBIT "B"
Work Agreement

SECTION 1 Plans.

1.1 Finalization of Plans. Prior to undertaking any Tenant Improvement Work, Tenant shall provide to Landlord, preliminary plans, drawings, and specifications for the Tenant Improvement Work (the "Preliminary Plans"). The Preliminary Plans shall include:

a) Drawings, plans, and specifications for the initial the Tenant improvement work, consistent with the Preliminary Plans and in form and substance sufficient to be submitted as part of an application for a building permit. Such documents must be stamped as approved by Landlord's architect, if required by Landlord. Tenant shall use Landlord's architect, unless otherwise agreed in writing by Landlord and Tenant.

b) The name, telephone number, emergency telephone numbers, and addresses of Tenant's proposed general contractor ("General Contractor") and the proposed plumbing, mechanical, and electrical subcontractors, if any.

c) A construction schedule indicating the actual Commencement Date of construction, weekly construction activities, and substantial completion date.

1.2 Approval. Landlord shall have the right to approve the plans and proposed contractors submitted by Tenant as set forth in Section 1.1a)-1.1c) above. Landlord's approval shall not to be unreasonably withheld, conditioned, or delayed. If Landlord does not give notice of disapproval, make a written request for additional information, or make corrections or changes to Tenant's submissions within ten (10) days after Tenant submits the same to Landlord for approval, then the submitted item or proposed contractor shall be deemed approved. If Landlord gives notice of disapproval, makes a written request for additional information, or makes corrections or changes to Tenant's submissions, Tenant shall propose alternative contractors, provide such requested information, or make such corrections or changes within five (5) days thereafter and resubmit same to Landlord. This process shall continue until the plans and contractors are approved by Landlord. Tenant must respond to any request from Landlord for information or approval regarding the Plans within ten (10) business days of Landlord's request therefor.

1.3 Final Plans. The drawings, plans, and specifications, once approved in accordance with the foregoing procedure, shall hereinafter be referred to as the "Final Plans" or "Plans."

SECTION 2 Tenant Improvement Work.

As used in this Work Agreement, "Tenant Improvement Work" means all work shown on the Plans, as they may be amended from time to time in accordance with this Work Agreement. Tenant shall cause the Tenant Improvement Work to be completed in a good and workmanlike manner, in accordance with the Final Plans and in strict compliance with all applicable building, fire, sanitary, and safety codes and governmental regulations, and all other applicable Laws. All Tenant Improvement Work will be performed by a licensed, bonded, insured general contractor approved by Landlord. Landlord shall under no circumstances be liable to Tenant or any third party for the quality, timing, compliance with laws, or any other aspect of the Tenant Improvement Work.

SECTION 3 Changes to the Final Plans.

Tenant shall not make any changes to the Final Plans without Landlord's prior written approval. Landlord's consent to changes shall not be unreasonably withheld, conditioned or delayed. Tenant shall be responsible for any increase in costs and expenses of the Tenant Improvement Work resulting from such changes, including any costs and expenses for review and costs and expenses relating to delays in completion, to the extent such costs and expenses exceed the Tenant Improvement Allowance (defined in Section 4 below). If Tenant requests Landlord's approval of a proposed change in the Final Plans, and if the proposed change causes a delay in substantial completion of the Tenant Improvement Work, the Commencement Date as set forth in Section 1.I. of the Lease shall not be delayed.

SECTION 4 Allocation of Costs.

4.1 Tenant's Costs. Tenant shall pay all costs and expenses of the Tenant Improvement Work, subject to the terms and conditions set forth in this Work Agreement, and the terms and conditions set forth in the Lease. Tenant's failure to make any payment required under this Work Agreement shall be a default under the Lease, without the requirement of any notice of default or cure period, and all such unpaid amounts shall be additional rent under the Lease.

4.2 Tenant Improvement Allowance.

a) Subject to this Section 4.2, Landlord shall provide Tenant with up to Three Hundred and Seventy-Three Thousand Nine Hundred and Five Dollars ($373,905.00) (the "Tenant Improvement Allowance") to be applied to the Costs (as defined in Section 4.2b) below) of the Tenant Improvement Work. Any portion of the Tenant Improvement Allowance not applied to Costs shall be retained by Landlord. Landlord shall also provide Tenant with up to $1,602.00 for Tenant's intial preliminary test fit space plan.

b) As used in this Work Agreement, the term "Costs" means reasonable hard construction costs, overhead and profit, architectural, engineering, and design fees and expenses, the costs of obtaining permits, systems development charges, the costs of measuring the rentable square footage of the Premises, Landlord's costs of reviewing any plans, specifications or drawings, the architect's fees, Landlord's project management fee not to exceed five percent (5%) of the total hard cost of construction, and costs associated with sustainability practices, if any for permanent, building standard improvements; provided, however, that in the event Tenant engages a professional project manager acceptable to Landlord in Landlord's reasonable discretion, the Landlord's project management fee shall be reduced to one percent (1%) of the total hard cost of construction, and costs associated with sustainability practices, if any for permanent, building standard improvements. Costs shall exclude, and the Tenant Improvement Allowance may not be used for any tenant specific improvements, trade fixtures, equipment, data/telecom installation and service, built-in reception desks and personal property and any non-building standard permanent building improvement. Landlord shall be the sole beneficiary of all tax credits, tax deductions, systems development charge credits, energy savings credits, sustainability credits, and all similar credits and benefits arising from the Tenant Improvement Work, to the extent the Costs giving rise thereto are paid or reimbursed from the Tenant Improvement Allowance. Tenant shall have no right to use or benefit from any system development charge credits owed or held by Landlord or the Property.

c) The Tenant Improvement Allowance, or applicable portion thereof, shall be paid by Landlord to Tenant in a single payment upon substantial completion (as defined in Section 8 below) of the Tenant Improvement Work, provided that the conditions set forth in this Section 4.2c) are satisfied. Upon substantial completion of the Tenant Improvement Work, Tenant shall submit the following to Landlord: (i) paid invoices (together with such supporting documentation as Landlord may reasonably request) for all Costs for which Tenant seeks reimbursement from the Tenant Improvement Allowance, (ii) a certification that all the work or supplies so invoiced have in fact been applied to the Tenant Improvement Work, and (iii) final, unconditional waivers and releases of lien rights from all contractors and subcontractors, in a form reasonably acceptable to Landlord. Following Landlord's receipt and approval of the items described in the foregoing clauses (a) through (c), which approval shall not be unreasonably withheld, Landlord shall reimburse Tenant up to the amount of the applicable Costs, to the extent of the Tenant Improvement Allowance. Landlord shall not be obligated to make any payment of any part of the Tenant Improvement Allowance if there are any liens, suits, actions, or proceedings pending that may affect the Building or the Land with respect to any Tenant Improvement Work, or if Tenant is otherwise in default of its obligations under the Lease at the time the disbursement is requested or is to be made. Landlord may offset against the Tenant Improvement Allowance to reduce Landlord's damages in such event (without thereby waiving or curing the default).

SECTION 5 Construction Bond; Insurance.

Tenant shall provide, or shall cause Tenant's General Contractor to provide, evidence of the following insurance coverages prior to commencing work and upon demand during the course of construction:

a) Workers Compensation for statutory limits in compliance with applicable state and federal laws.

b) Commercial general liability with limits not less than $2,000,000 combined single limit per occurrence for Bodily Injury and Property Damage, naming Landlord and its Landlord's Property Manager as additional insureds.

c) Builder's risk coverage in the coverage amount not less than the projected cost of the Tenant Improvement Work.

Each certificate of insurance must contain a provision confirming that no cancellation or material change in the policies will be effective except upon thirty (30) days' prior written notice to Landlord, if available.

SECTION 6 Cooperation, Progress Meetings.

In connection with delivery of the Preliminary Plans, Tenant and Landlord shall each designate a "Construction Representative" who shall be available for onsite and telephone consultations and decisions as necessary. Tenant's Construction Representatives shall have the authority to bind each party as to all matters relating to the Tenant Improvement Work. Without limiting the foregoing, each party shall cooperate with the other to facilitate and expedite the efficient design and construction of the Tenant Improvement Work. Tenant's and Landlord's representatives shall hold regular meetings at a reasonable time (but not required more often than weekly) regarding the progress of the Tenant Improvement Work, which meeting shall be held at a location designated by Tenant on the construction site, or as otherwise mutually agreed by Landlord and Tenant.

SECTION 7 Construction Inspection; Notice of Nonresponsibility.

Landlord and Landlord's representatives, agents, and building management employees shall at all times during construction have access to the construction site to conduct periodic construction inspections, provided said inspections do not unreasonably interfere with Tenant's contractors or subcontractors. Landlord may at any time post one or more notices of nonresponsibility at the Premises.

SECTION 8 Commencement Date.

The Commencement Date shall be as set forth in Section 1.J of the Lease, notwithstanding the date of substantial completion of the Tenant Improvement Work. For purposes of this Work Agreement and the Lease, the term "substantial completion" with respect to the Tenant Improvement Work means that the Tenant Improvement Work has been completed substantially in accordance with the Final Plans, notwithstanding that minor or insubstantial details of construction, mechanical adjustment, or decoration remain to be performed, the noncompletion of which does not materially adversely interfere with Tenant's beneficial use of the Premises.

SECTION 9 Punch List.

Upon substantial completion of the Tenant Improvement Work, Landlord and Tenant shall promptly jointly inspect the Premises and note any additional items of Tenant Improvement Work that remain to be completed. On the basis of the joint inspection, Landlord shall prepare a list (the "Punch List") setting forth all the items of Tenant Improvement Work that remain to be completed. The joint inspection, delivery of the Punch List, and completion of the Punch List are not prerequisites to the occurrence of substantial completion or the occurrence of the Commencement Date. Tenant shall use reasonable efforts to cause all items set forth on the Punch List to be completed within one (1) month following preparation of the Punch List.

SECTION 10 Construction Rules.

Tenant shall be responsible for assuring its General Contractor's compliance with the construction rules attached hereto as Exhibit B-2. Landlord reserves the right to implement additional rules and regulations as it may deem necessary.

SECTION 11 **Credits and Offsets.**

Landlord shall retain the rights to, and shall be the sole beneficiary of, all tax credits, tax deductions, systems development charge credits, sustainability credits, and all similar credits and benefits arising from or related to any Tenant Improvement Work.

SECTION 12 Effect of Work Agreement.

Except as specifically modified by the terms and conditions of this Work Agreement, all terms and conditions of the Lease remain in full force and effect and all such terms and conditions apply to the performance of the parties' obligations under this Work Agreement. In the event of a conflict between the terms hereof and the terms of the Lease, the terms hereof shall control.

SECTION 13 Use of Capitalized Terms.

Terms capitalized, but not defined herein, shall have the meaning set forth in the Lease.

IN WITNESS WHEREOF, the duly authorized representatives of the parties have executed this Work Agreement as of the day and year first written above in the Lease.

LANDLORD: HILLSBORO 229 LLC,
an Oregon limited liability company

DocuSigned by:
By: [signature]
05522E2F5...
Printed Name: Pete Overgaag
Title: Pete Overgaag is the owner

TENANT: ACM Research, Inc.,
a Delaware Corporation

DocuSigned by:
By: David Wang
82D36D7...
Printed Name: David Wang
Title: CEO

Exhibit B-1 - Preliminary Plans
Exhibit B-2 - Construction Rules

EXHIBIT B-1
PRELIMINARY PLANS

EXHIBIT B-2
CONSTRUCTION RULES

a) The General Contractor acknowledges that this building is or may be in the future certified/rated pursuant to the U.S. EPA's Energy Star or the U.S. Green Building Council's rating system.

b) An agent or representative of General Contractor must be present on the site at all times when work is in process.

c) All inspections that must be performed by testing any or all of the life safety system, e.g., alarms, annunciator, voice activated, strobe lights, etc., must be performed prior to 8:00 a.m. or after 6:00 p.m., or at times otherwise approved by Landlord, and the on-site engineer must be present. At least forty-eight (48) hours' notice must be provided to the Building Manager advising that an inspection has been requested.

d) The use of the Building elevators for deliveries and removals shall be scheduled in advance by General Contractor with the Landlord's Property Manager for the transfer of all construction materials, tools, and trash to and from the Premises, or any Landlord approved staging area. If the building has a freight elevator, then it shall be used for all construction related purposes, and passenger elevators shall not be used for these purposes. Large transfers of materials, whether for deliveries or removals, must be done prior to 7:00 a.m. or after 6:00 p.m., or at times otherwise approved by Landlord. No deliveries of any kind or nature shall be brought in through the front door of the Building at any time, unless expressly approved by Landlord in writing.

e) General Contractor shall take all necessary precautions to protect all walls, carpets, floors, furniture, fixtures, and equipment outside the work area and shall repair or replace damaged property without cost to Landlord.

f) Sources of water and electricity will be furnished to General Contractor without cost, in reasonable quantities for use in lighting, power tools, drinking water, water for testing, etc. "Reasonable quantities" will be determined on a case-by-case basis but are generally intended to mean quantities comparable to the water and electrical demand Tenant would use upon taking

g) Demolition of an area in excess of 100 square feet must be performed before 8:00 a.m. or after 6:00 p.m., or at times otherwise approved by Landlord. General Contractor shall notify the Landlord's Property Manager's office at least one (1) full business day prior to commencement of extremely dusty work (sheet rock cutting, sanding, extensive sweeping, etc.) so arrangements can be made for additional filtering capacity on the affected HVAC equipment. Failure to make such notification will result in General Contractor's absorbing the costs to return the equipment to its proper condition. All lights must be covered during high dust construction due to a plenum return air system.

h) All painting must be completed outside of normal office hours (after 6:00 PM and before 7:00 AM, or at times otherwise approved by Landlord) or on weekends. Paints used on site shall be low-VOC and are to be brush-applied only; spray painting is not allowed on site unless prior approval is obtained from Landlord's Property Manager.

i) Any and all existing building materials removed and not reused in the construction shall be disposed of by General Contractor as waste or unwanted materials, unless otherwise directed by the Landlord's Property Manager. General Contractor shall at all times keep areas outside the work area free from waste material, rubbish and debris and shall remove waste materials from the Building on a daily basis. Upon construction completion, General Contractor shall remove all debris and thoroughly clean the work area and any common areas impacted by the work.

j) General Contractor agrees to provide the Landlord's Property Manager with at least seventy-two (72) hours' advance notice of all chemicals to be used on site through written notice and delivery of MSDS sheets.

k) Standard construction hours are 6:30 a.m. - 5:00 p.m. The Landlord's Property Manager must be notified at least two (2) full business days in advance of any work that may disrupt normal business operations, e.g., drilling or cutting of the concrete floor slab. The Landlord's Property Manager reserves the right to determine what construction work is considered inappropriate for normal business hours.

l) No abusive language or actions on the part of the workers will be tolerated. It will be the responsibility of General Contractor to enforce this regulation on a day-to-day basis. General Contractor and subcontractors shall remain in the designated construction area so as not to unnecessarily interrupt other tenants. All workers must wear company identification.

m) General Contractor is to perform a thorough inspection of all common areas to which it requires access prior to construction to document existing Building conditions. Upon completion of work, if necessary, General Contractor shall return these areas to the same condition in which they were originally viewed. Any damage caused by General Contractor shall be corrected at its sole cost.

n) General Contractor or subcontractor signage may not be displayed in the Building common areas or on any of the window glass.

o) In case of emergency, General Contractor shall call the police/fire department and/or medical services, followed immediately by a call to the Landlord's Property Manager.

p) At no time will the Building staff accept deliveries on behalf of General Contractor or any subcontractor.

EXHIBIT "C"
COMMENCEMENT DATE CERTIFICATE

This Commencement Date Lease Certificate is made as of this ____ day of __________, ______ ("Certificate Date") with reference to that certain Lease dated March 6, 2023 by and between Hillsboro 229, LLC, an Oregon limited liability company ("Landlord"), and ACM Research, Inc., a Delaware corporation ("Tenant"), for the Premises referred to as Suite 200, located in a Building located at 2900 NE Century Blvd, Suite 200, Hillsboro, OR 97214. The undersigned hereby affirm and acknowledge the following information as true and correct.

Lease Execution Date: March 6, 2023
Commencement Date: April 1, 2023
Term Expiration Date: August 31, 2030

Base Rent Schedule

Effective Dates:	Monthly Base Rent
April 1, 2023 – April 30, 2023	$ 0.00
May 1, 2023 – March 31, 2024	$14,689.13
April 1, 2024 – April 28, 2024	$ 0.00
May 1, 2024 – March 31, 2025	$15,129.80
April 1, 2025 – March 31, 2026	$15,583.70
April 1, 2026 – March 31, 2027	$16,051.21
April 1, 2027 – March 31, 2028	$16,532.75
April 1, 2028 – March 31, 2029	$17,028.73
April 1, 2029 – March 31, 2030	$17,539.59
April 1, 2030 – August 31, 2030	$18,065.78

IN WITNESS WHEREOF, the parties have executed this Commencement Date Lease Certificate as of the Certificate Date.

LANDLORD: HILLSBORO 229 LLC,
an Oregon limited liability company

By:______________________________

Printed Name: ______________________________

Title:______________________________

TENANT: ACM Research, Inc.,
a Delaware Corporation

By:______________________________

Printed Name: ______________________________

Title:______________________________

EXHIBIT "D"
Rules & Regulations

1. The entrances, halls, corridors, stairways, exits, and elevators shall not be obstructed by any of the tenants or used for any purpose other than for ingress from their respective premises. The entrances, halls, corridors, stairways, exits, and elevators are not intended for use by the general public but for the tenant and its employees, licensees, and invitees. Landlord reserves the right to control and operate the public portions of the Building and the public facilities, as well as facilities furnished for the common use of the tenants, in such manner as it in its reasonable judgment deems best for the benefit of the tenants generally. No tenant shall invite to the tenant's premises, or permit the visit of, persons in such numbers or under such conditions as to interfere with the use and enjoyment of any of the plazas, entrances, corridors, elevators, and other facilities of the Building by any other tenants. Fire exits and stairways are for emergency use only, and they will not be used for any other purpose.

2. Landlord may refuse admission to the Building outside business hours of the Building to any person not producing identification or admission credentials satisfactory to Landlord. If Landlord issues identification passes, pass codes, or keys, Tenant shall be responsible for all persons for whom it issues any such passes, pass codes, or keys and shall be liable to Landlord for all acts or omissions of such persons.

3. No awnings or other projections shall be attached to the outside walls of the Building. No curtains, blinds, shades or screens, if any, that are different from the standards adopted by Landlord for the Building shall be attached to or hung in any exterior window or door of the premises of any tenant without the prior written consent of Landlord.

4. No sign, placard, picture, name lettering, advertisement, notice, or object visible from the exterior of any tenant's premises shall be displayed in or on the exterior windows or doors, or on the outside of any tenant's premises, or at any point inside any tenant's premises where the same might be visible outside of such premises, without the prior written consent of Landlord. Landlord may adopt and furnish to tenants general guidelines relating to signs inside the Building and Tenant shall conform to such guidelines. All approved signs or lettering shall be prepared, printed, affixed, or inscribed at the expense of the tenant and shall be of a size, color, and style acceptable to Landlord.

5. The windows that reflect or admit light and air into the halls, passageways or other public places in the Building shall not be covered or obstructed by any tenant, nor shall any bottles, parcels or other articles be placed on the window sills.

6. No showcases or other articles shall be put in front of or affixed to any part of the exterior of the Building, nor placed in the halls, corridors, or vestibules.

7. No bicycles, vehicles, animals, fish, or birds of any kind shall be brought into or kept in the premises of any tenant or the Building, except those animals which are required by applicable law to be admitted to the Building. In such event, (a) Tenant shall remove from the Property all bodily waste from such animals, (b) Tenant shall repair any damage caused by such animals, and (c) Tenant's indemnification obligations and other obligations of the Lease shall include and apply to any claim, cost, loss, damage, and expense (including reasonable attorneys' fees) incurred by Landlord arising from any animal brought onto the Property by any agent, invitee, licensee, or contractor of Tenant.

8. During normal business hours, 8a to 5p, Monday through Friday (except Holidays), No noise, including but not limited to, music or the playing of musical instruments, recordings, radio or television, which, in the judgment of Landlord, might disturb other tenants in the Building, shall be made or permitted by any tenant.

9. No tenant, nor any tenant's contractors, employees, agents, visitors, invitees or licensees, shall at any time bring into or keep upon the premises or the Building any inflammable, combustible, explosive, environmentally hazardous, or otherwise dangerous fluid, chemical, or substance.

10. All movement of freight, furniture, packages, boxes, crates, or any other object or matter of any description must take place during such hours and in such elevators, and in such manner as Landlord or its agent may reasonably determine from time to time.

11. No tenant shall use its premises, or permit any part thereof to be used, for manufacturing or the sale at retail or auction of merchandise, goods, or property of any kind unless said use is consistent with the use provisions of the Lease.

12. Landlord shall have the right to prescribe the weight and position of safes and other objects of excessive weight, and no safe or other object whose weight exceeds the lawful load for the area upon which it would stand shall be brought

into or kept upon any tenant's premises. If, in the judgment of Landlord, it is necessary to distribute the concentrated weight of any heavy object, the work involved in such distribution shall be done at the expense of the tenant and in such manner as Landlord shall determine.

13. Landlord, its contractors, and their respective employees, shall have the right to use, without charge therefor, all light, power, and water in the premises of any tenant while cleaning or making repairs or alterations in the premises of such tenant.

14. No premises of any tenant shall be used for lodging or sleeping or for any immoral or illegal purpose.

15. The requirements of tenants for any services by Landlord will be attended to only upon prior application to Landlord. Employees of Landlord shall not perform any work or do anything outside of their regular duties, unless under special instructions from Landlord.

16. Canvassing, soliciting, and peddling in the Building are prohibited and each tenant shall cooperate to prevent the same.

17. Each tenant shall store its trash and garbage within its premises. No material shall be placed in the trash boxes or receptacles if such material is of such nature that it may not be disposed of in the ordinary and customary manner of removing and disposing of office building trash and garbage in the area of the Building without being in violation of any law or ordinance governing such disposal. All garbage and refuse disposal shall be made only through entryways and elevators provided for such purposes and at such times as Landlord shall designate. No tenant shall cause or permit any unusual or objectionable odors to emanate from its premises that would annoy other tenants or create a public or private nuisance.

18. No coin vending machine, video game, coin or token operated amusement device, or similar machine shall be used or installed in any tenant's premises without Landlord's prior written consent.

19. No bankruptcy, going out of business, liquidation, or other form of distress sale shall be held on any of tenant's premises. No advertisement shall be done by loudspeaker, barkers, flashing lights or displays or other methods not consistent with the character of an office building.

20. Nothing shall be done or permitted in any tenant's premises, and nothing shall be brought into or kept in any tenant's premises, that would impair or interfere with the economic heating, cleaning, or other servicing of the Building or the premises, or the use or enjoyment by any other tenant of any other premises, nor shall there be installed by any tenant any ventilating, air conditioning, electrical, or other equipment of any kind which, in the reasonable judgment of Landlord, might cause any such impairment or interference.

21. No acids, vapors, or other similar caustic materials shall be discharged or permitted to be discharged into the waste lines, vents, or flues of the Building. The water and wash closets and other plumbing fixtures in or serving any tenant's premises shall not be used for any purpose other than the purposes for which they were designed or constructed, and no sweepings, rubbish, rags, acids, or other foreign substances shall be deposited therein. All damages resulting from any misuse of the fixtures shall be borne by the tenant who, or whose servants, employees, agents, invitees, visitors or licensees shall have, caused the same.

22. All entrance doors in each tenant's premises shall be left locked and all windows shall be left closed by the tenant when the tenant's premises are not in use. Entrance doors to the tenant's premises shall not be left open at any time. Each tenant, before closing and leaving its premises at any time, shall turn out all lights.

23. Hand trucks not equipped with rubber tires and side guards shall not be used within the Building.

24. Landlord reserves the right to rescind, modify, alter, or waive any rule or regulation at any time prescribed for the Building when, in Landlord's reasonable judgment, it deems it necessary, desirable or proper for its best interest and for the best interests of the tenants generally, and no alteration or waiver of any rule or regulation in favor of any tenant shall constitute a waiver or alteration in favor of any other tenant. Landlord shall not be responsible to any tenant for the nonobservance or violation by any other tenant of any of the rules and regulations at any time prescribed for the Building.

25. No smoking or vaping shall be permitted on the Property at any time.

26. Landlord reserves the right to add to, modify, or otherwise change these Rules and Regulations. Such changes shall become effective when written notice thereof is provided to tenants of the Building.

Exhibit 31.01

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

I, David H. Wang, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of ACM Research, Inc.

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly 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.

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 7, 2023

/s/ David H. Wang

David H. Wang
Chief Executive Officer and President
(Principal Executive Officer)

Exhibit 31.02

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

I, Mark McKechnie, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of ACM Research, Inc.

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly 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.

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 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 7, 2023

/s/ Mark McKechnie
Mark McKechnie
Chief Financial Officer, Executive Vice President and Treasurer
(Principal Financial Officer)

Exhibit 32.01

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

In connection with the Quarterly Report on Form 10-Q of ACM Research, Inc. for the quarterly period ended June 30, 2023, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to his or her knowledge on the date hereof:

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

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of ACM Research, Inc. for the period presented therein.

Date: August 7, 2023	/s/ David H. Wang
	David H. Wang Chief Executive Officer and President *(Principal Executive Officer)*
Date: August 7, 2023	/s/ Mark McKechnie
	Mark McKechnie Chief Financial Officer, Executive Vice President and Treasurer *(Principal Financial Officer)*

The foregoing certification is being furnished solely pursuant to 18 U.S.C. § 1350 and is not being filed as part of the Report or as a separate disclosure document.