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 March 31, 2022

OR

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

For the transition period from _____ to _____

Commission file number 000-30713

Intuitive Surgical, Inc.

(Exact name of Registrant as specified in its Charter)

Delaware	**77-0416458**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification No.)**

1020 Kifer Road
Sunnyvale, California 94086
(Address of principal executive offices) (Zip Code)

(408) 523-2100
(Registrant's telephone number, including area code)

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

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

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

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

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 definition of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

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

The Registrant had 358,956,511 shares of Common Stock, $0.001 par value per share, outstanding as of April 19, 2022.

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PART I – FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

INTUITIVE SURGICAL, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(UNAUDITED)

in millions (except par values)	March 31, 2022	December 31, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 1,103.1	$ 1,290.9
Short-term investments	2,882.5	2,913.1
Accounts receivable, net	906.1	782.7
Inventory	653.0	587.1
Prepaids and other current assets	258.5	271.1
Total current assets	5,803.2	5,844.9
Property, plant, and equipment, net	1,968.2	1,876.4
Long-term investments	4,416.2	4,415.5
Deferred tax assets	485.4	441.4
Intangible and other assets, net	662.2	633.2
Goodwill	343.2	343.6
Total assets	$ 13,678.4	$ 13,555.0
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 128.1	$ 121.2
Accrued compensation and employee benefits	219.8	350.1
Deferred revenue	386.0	377.2
Other accrued liabilities	378.3	301.3
Total current liabilities	1,112.2	1,149.8
Other long-term liabilities	409.3	453.7
Total liabilities	1,521.5	1,603.5
Contingencies (Note 8)		
Stockholders' equity:		
Preferred stock, 2.5 shares authorized, $0.001 par value, issuable in series; no shares issued and outstanding as of March 31, 2022, and December 31, 2021	—	—
Common stock, 600.0 shares authorized, $0.001 par value, 358.9 shares and 357.7 shares issued and outstanding as of March 31, 2022, and December 31, 2021, respectively	0.4	0.4
Additional paid-in capital	7,354.6	7,164.0
Retained earnings	4,858.0	4,760.9
Accumulated other comprehensive income (loss)	(110.7)	(24.2)
Total Intuitive Surgical, Inc. stockholders' equity	12,102.3	11,901.1
Noncontrolling interest in joint venture	54.6	50.4
Total stockholders' equity	12,156.9	11,951.5
Total liabilities and stockholders' equity	$ 13,678.4	$ 13,555.0

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements (Unaudited).

INTUITIVE SURGICAL, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(UNAUDITED)

in millions (except per share amounts)	Three Months Ended March 31, 2022	2021
Revenue:		
Product	$ 1,238.4	$ 1,074.6
Service	249.3	217.5
Total revenue	1,487.7	1,292.1
Cost of revenue:		
Product	397.3	319.3
Service	80.7	70.2
Total cost of revenue	478.0	389.5
Gross profit	1,009.7	902.6
Operating expenses:		
Selling, general and administrative	391.1	326.0
Research and development	210.5	159.8
Total operating expenses	601.6	485.8
Income from operations	408.1	416.8
Interest and other income (expense), net	(5.7)	32.0
Income before taxes	402.4	448.8
Income tax expense	33.0	13.6
Net income	369.4	435.2
Less: net income attributable to noncontrolling interest in joint venture	3.8	8.9
Net income attributable to Intuitive Surgical, Inc.	$ 365.6	$ 426.3
Net income per share attributable to Intuitive Surgical, Inc.:		
Basic	$ 1.02	$ 1.20
Diluted	$ 1.00	$ 1.17
Shares used in computing net income per share attributable to Intuitive Surgical, Inc.:		
Basic	358.4	354.2
Diluted	366.7	364.0
Other comprehensive loss, net of tax:		
Change in unrealized gains on hedge instruments	$ 1.0	$ 6.1
Change in unrealized losses on available-for-sale securities	(90.7)	(10.0)
Change in foreign currency translation gains (losses)	3.5	(9.5)
Change in prior service cost for employee benefit plans	0.1	0.1
Other comprehensive loss	(86.1)	(13.3)
Total comprehensive income	283.3	421.9
Less: comprehensive income attributable to noncontrolling interest	4.2	9.1
Total comprehensive income attributable to Intuitive Surgical, Inc.	$ 279.1	$ 412.8

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements (Unaudited).

INTUITIVE SURGICAL, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)

in millions	Three Months Ended March 31, 2022	2021
Operating activities:		
Net income	$ 369.4	$ 435.2
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and loss on disposal of property, plant, and equipment	77.7	64.8
Amortization of intangible assets	6.1	6.9
Gain on sale of business	(3.8)	—
Loss (gain) on investments, accretion, and amortization, net	26.0	(12.6)
Deferred income taxes	(14.4)	44.7
Share-based compensation expense	120.8	103.2
Amortization of contract acquisition assets	6.6	4.9
Changes in operating assets and liabilities, net of effects of acquisitions:		
Accounts receivable	(123.4)	(14.3)
Inventory	(120.1)	(41.2)
Prepaids and other assets	(21.7)	(73.2)
Accounts payable	(1.9)	23.7
Accrued compensation and employee benefits	(130.3)	(40.2)
Deferred revenue	11.4	6.8
Other liabilities	20.6	(31.1)
Net cash provided by operating activities	223.0	477.6
Investing activities:		
Purchase of investments	(1,187.3)	(1,833.1)
Proceeds from sales of investments	—	72.0
Proceeds from maturities of investments	1,067.7	1,231.4
Purchase of property, plant, and equipment and intellectual property	(95.1)	(58.6)
Acquisition of businesses, net of cash	—	(8.7)
Net cash used in investing activities	(214.7)	(597.0)
Financing activities:		
Proceeds from issuance of common stock relating to employee stock plans	80.0	84.0
Taxes paid related to net share settlement of equity awards	(172.2)	(178.3)
Repurchase of common stock	(106.5)	—
Payment of deferred purchase consideration	(1.2)	(7.9)
Net cash used in financing activities	(199.9)	(102.2)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	3.8	0.8
Net increase (decrease) in cash, cash equivalents, and restricted cash	(187.8)	(220.8)
Cash, cash equivalents, and restricted cash, beginning of period	1,306.0	1,638.5
Cash, cash equivalents, and restricted cash, end of period	$ 1,118.2	$ 1,417.7

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements (Unaudited).

In this report, "Intuitive Surgical," "Intuitive," the "Company," "we," "us," and "our" refer to Intuitive Surgical, Inc. and its wholly and majority-owned subsidiaries.

NOTE 1. DESCRIPTION OF THE BUSINESS

Intuitive Surgical, Inc. ("Intuitive" or the "Company") develops, manufactures, and markets the da Vinci® Surgical System and the Ion® endoluminal system. The Company's products and related services enable physicians and healthcare providers to improve the quality of and access to minimally invasive care. The systems consist of a surgeon console or consoles, a patient-side cart, a high-performance vision system, and proprietary instruments and accessories.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

In the opinion of management, the accompanying unaudited Condensed Consolidated Financial Statements ("Financial Statements") of Intuitive Surgical, Inc. and its wholly and majority-owned subsidiaries have been prepared on a consistent basis with the audited Consolidated Financial Statements for the fiscal year ended December 31, 2021, and include all adjustments, consisting of only normal, recurring adjustments, necessary to fairly state the information set forth herein. The Financial Statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission ("SEC") and, therefore, omit certain information and footnote disclosure necessary to present the Financial Statements in accordance with United States ("U.S.") generally accepted accounting principles ("U.S. GAAP"). These Financial Statements should be read in conjunction with the audited Consolidated Financial Statements and notes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021, which was filed with the SEC on February 3, 2022. The results of operations for the first three months of 2022 are not necessarily indicative of the results to be expected for the entire fiscal year or any future periods.

The Financial Statements include the results and balances of the Company's majority-owned joint venture ("Joint Venture") with Shanghai Fosun Pharmaceutical (Group) Co., Ltd. ("Fosun Pharma"). Chindex Medical Limited ("Chindex"), a subsidiary of Fosun Pharma, has been its distribution partner for da Vinci Surgical Systems in China. The Company holds a controlling financial interest in the Joint Venture, and the noncontrolling interest is reflected as a separate component of the consolidated stockholders' equity. The noncontrolling interest's share of the earnings in the Joint Venture is presented separately in the Condensed Consolidated Statements of Comprehensive Income.

Common Stock Split

Shares issued pursuant to the three-for-one stock split (the "Stock Split") of the Company's issued and outstanding common stock, par value $0.001 per share, were distributed on October 4, 2021, to stockholders of record as of September 27, 2021. All share and per-share information presented in the Financial Statements have been retroactively adjusted to reflect the Stock Split.

Risks and Uncertainties

The Company is subject to additional risks and uncertainties due to the COVID-19 pandemic. The extent of the impact on the Company's business is highly uncertain and difficult to predict. In certain regions, the Company's customers continue to divert resources to treat COVID-19 patients and defer some elective surgical procedures, both of which may impact the Company's customers' ability to meet their obligations, including to the Company. Furthermore, economies worldwide have been negatively impacted by the COVID-19 pandemic, and it is possible that the impact could cause an extended local and/or global economic recession. Such economic disruption could have a material adverse effect on the Company's business as hospitals curtail and reduce capital and overall spending. Policymakers around the globe have responded with fiscal policy actions to support the healthcare industry and their economies. However, the magnitude and overall effectiveness of these actions remains uncertain.

The severity of the impact of the COVID-19 pandemic on the Company's business will depend on a number of factors, including, but not limited to, the duration and severity of the pandemic and the extent and severity of the impact on the Company's customers, all of which are uncertain and cannot be predicted. The Company's future results of operations and liquidity could be materially adversely affected by delays in payments of outstanding receivables, supply chain disruptions, including shortages and inflationary pressure, uncertain or reduced demand, and the impact of any initiatives or programs that the Company may undertake to address financial and operational challenges faced by its customers.

In particular, the Company has experienced increased difficulties in obtaining a sufficient supply of a number of component materials used in its products, such as semiconductor components as well as a range of other materials including, but not limited to, metals and polymers, as global supply has become significantly constrained due to increased demand for certain materials. Additionally, prices of such materials have increased due to the increased demand and supply shortage. The Company is engaged in activities to seek to mitigate supply disruptions by, for example, increasing its communications with its

suppliers and modifying its purchase order coverage and inventory levels, but the Company has experienced a reduction in its safety stock levels. Moreover, the global supply chain shortages are likely to remain a challenge for the foreseeable future.

The Company has also experienced challenges in logistics, as certain shipping routes have been impacted by port closures. Such global shortages in important components and logistics challenges have resulted in, and will continue to cause, inflationary cost pressure in the Company's supply chain. To date, the inflationary cost pressure has been more pronounced in the Company's logistics costs, but these supply chain challenges have not materially impacted the Company's results of operations or ability to deliver products and services to its customers. However, if shortages in important supply chain materials in the semiconductor or other markets or logistics challenges continue, the Company could fail to meet product demand, which could result in deferred or cancelled procedures. Additionally, if inflationary pressures in logistics or component costs persist, we may not be able to quickly or easily adjust pricing, reduce costs, or implement countermeasures, all of which would adversely impact its business, financial condition, results of operations, or cash flows.

Increased labor shortages globally, including staff burnout and attrition, could also impact the Company's ability to hire and retain personnel critical to its manufacturing, logistics, and commercial operations. The Company is also highly dependent on the principal members of its management and scientific staff. Attracting and retaining qualified personnel is critical to its success, and competition for them has become more intense. The loss of critical members of the Company's team, or its inability to attract and retain qualified personnel, could significantly harm its operations, business, and ability to compete.

In addition, hospitals are experiencing financial and operational pressures as a result of staffing shortages, the supply chain environment, and resulting inflation that could impact their ability to provide patient care, defer elective surgeries, and impact their profitability. In addition, the rising interest rate environment has made access to credit more expensive. To the extent that hospitals continue to face financial pressures, reductions in government spending, or higher interest rates, it is likely that hospitals' spend on capital equipment will be adversely impacted. As of the date of issuance of these Financial Statements, the extent to which the COVID-19 pandemic, supply chain environment, inflationary pressures, and labor shortages may materially adversely affect the Company's financial condition, liquidity, or results of operations is uncertain.

Recently Adopted Accounting Pronouncements

Business Combinations

In October 2021, the FASB issued ASU No. 2021-08, *Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers* ("ASU 2021-08"), which creates an exception to the general recognition and measurement principle in ASC 805 by requiring companies to apply ASC 606 to recognize and measure contract assets and contract liabilities from contracts with customers acquired in a business combination. The guidance additionally clarifies that companies should apply the definition of a performance obligation in ASC 606 when recognizing contract liabilities assumed in a business combination. The Company has early adopted ASU 2021-08 as of January 1, 2022, on a prospective basis. The impact of the adoption of ASU 2021-08 cannot currently be determined, as it is dependent on future business combinations that the Company may enter into.

Significant Accounting Policies

There have been no new or material changes to the significant accounting policies discussed in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021, that are of significance, or potential significance, to the Company.

NOTE 3. FINANCIAL INSTRUMENTS

Cash, Cash Equivalents, and Investments

The following tables summarize the Company's cash and available-for-sale marketable securities' amortized cost, gross unrealized gains, gross unrealized losses, allowance for credit loss, and fair value by significant investment category reported as cash and cash equivalents, short-term investments, or long-term investments as of March 31, 2022 and December 31, 2021 (in millions):

						Reported as:		
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Allowance for Credit Loss	Fair Value	Cash and Cash Equivalents	Short-term Investments	Long-term Investments
March 31, 2022								
Cash	$ 579.4	$ —	$ —	$ —	$ 579.4	$ 579.4	$ —	$ —
Level 1:								
Money market funds	491.6	—	—	—	491.6	491.6	—	—
U.S. treasuries	3,599.5	0.9	(71.8)	—	3,528.6	12.0	1,329.3	2,187.3
Subtotal	4,091.1	0.9	(71.8)	—	4,020.2	503.6	1,329.3	2,187.3
Level 2:								
Commercial paper	581.3	—	—	—	581.3	16.2	565.1	—
Corporate debt securities	2,554.6	0.3	(53.3)	(1.1)	2,500.5	3.9	770.0	1,726.6
U.S. government agencies	541.3	—	(13.5)	—	527.8	—	140.0	387.8
Municipal securities	196.9	0.1	(4.4)	—	192.6	—	78.1	114.5
Subtotal	3,874.1	0.4	(71.2)	(1.1)	3,802.2	20.1	1,553.2	2,228.9
Total assets measured at fair value	$ 8,544.6	$ 1.3	$ (143.0)	$ (1.1)	$ 8,401.8	$ 1,103.1	$ 2,882.5	$ 4,416.2

						Reported as:		
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Allowance for Credit Loss	Fair Value	Cash and Cash Equivalents	Short-term Investments	Long-term Investments
December 31, 2021								
Cash	$ 572.3	$ —	$ —	$ —	$ 572.3	$ 572.3	$ —	$ —
Level 1:								
Money market funds	696.6	—	—	—	696.6	696.6	—	—
U.S. treasuries	3,429.1	6.3	(15.4)	—	3,420.0	17.0	1,100.3	2,302.7
Subtotal	4,125.7	6.3	(15.4)	—	4,116.6	713.6	1,100.3	2,302.7
Level 2:								
Commercial paper	717.7	—	—	—	717.7	—	717.7	—
Corporate debt securities	2,485.6	2.7	(11.9)	—	2,476.4	5.0	886.7	1,584.7
U.S. government agencies	526.1	0.2	(2.9)	—	523.4	—	137.8	385.6
Municipal securities	213.4	0.7	(1.0)	—	213.1	—	70.6	142.5
Subtotal	3,942.8	3.6	(15.8)	—	3,930.6	5.0	1,812.8	2,112.8
Total assets measured at fair value	$ 8,640.8	$ 9.9	$ (31.2)	$ —	$ 8,619.5	$ 1,290.9	$ 2,913.1	$ 4,415.5

The following table summarizes the contractual maturities of the Company's cash equivalents and available-for-sale investments (excluding cash and money market funds), as of March 31, 2022 (in millions):

	Amortized Cost	Fair Value
Mature in less than one year	$ 2,924.3	$ 2,914.6
Mature in one to five years	4,549.3	4,416.2
Total	$ 7,473.6	$ 7,330.8

Actual maturities may differ from contractual maturities, because certain borrowers have the right to call or prepay certain obligations. Realized gains and losses recognized on the sale of investments were not material for any of the periods presented.

The following tables present the breakdown of the available-for-sale debt securities that have been in a continuous unrealized loss position deemed to be temporary, aggregated by investment category, as of March 31, 2022, and December 31, 2021 (in millions):

	March 31, 2022					
	Less than 12 months		More than 12 months		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
U.S. treasuries	$ 2,807.4	$ (59.6)	$ 303.5	$ (12.2)	$ 3,110.9	$ (71.8)
Commercial paper	6.9	—	—	—	6.9	—
Corporate debt securities	1,935.7	(49.2)	78.5	(4.1)	2,014.2	(53.3)
U.S. government agencies	506.9	(12.9)	10.9	(0.6)	517.8	(13.5)
Municipal securities	165.2	(4.4)	—	—	165.2	(4.4)
Total	$ 5,422.1	$ (126.1)	$ 392.9	$ (16.9)	$ 5,815.0	$ (143.0)

	December 31, 2021					
	Less than 12 months		More than 12 months		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
U.S. treasuries	$ 2,596.3	$ (15.4)	$ —	$ —	$ 2,596.3	$ (15.4)
Commercial paper	4.0	—	—	—	4.0	—
Corporate debt securities	1,687.9	(11.9)	—	—	1,687.9	(11.9)
U.S. government agencies	412.5	(2.9)	—	—	412.5	(2.9)
Municipal securities	156.0	(1.0)	—	—	156.0	(1.0)
Total	$ 4,856.7	$ (31.2)	$ —	$ —	$ 4,856.7	$ (31.2)

The Company's investment portfolio at any point in time contains available-for-sale debt securities including investments in U.S. treasury and U.S. government agency securities, taxable and tax-exempt municipal notes, corporate notes and bonds, commercial paper, non-U.S. government agency securities, cash deposits, and money market funds. The Company segments its portfolio based on the underlying risk profiles of the securities and has a zero loss expectation for U.S. treasury and U.S. government agency securities. The basis for this assumption is that these securities have consistently high credit ratings by rating agencies, have a long history with no credit losses, are explicitly guaranteed by a sovereign entity, which can print its own currency, and is a currency that is routinely held by central banks, used in international commerce, and commonly viewed as a reserve currency. The Company regularly reviews the securities in an unrealized loss position and evaluates the current expected credit loss by considering factors such as historical experience, market data, issuer-specific factors, and current economic conditions. For the three months ended March 31, 2022, the credit losses related to available-for-sales debt securities were not material.

The Company determined these unrealized losses to be temporary. Factors considered in determining whether a loss is temporary included the length of time and extent to which the investment's fair value has been less than the cost basis, the financial condition and near-term prospects of the investee, the extent of the loss related to credit of the issuer, the expected cash flows from the security, the Company's intent to sell the security, and whether or not the Company will be required to sell the security before the recovery of its amortized cost. As of March 31, 2022, the Company did not intend to sell any of the debt

securities included in the table above, and it is not more likely than not that the Company will be required to sell any of these securities before recovery of the unrealized losses, which may be at maturity.

Equity Investments

The Company holds equity investments with readily determinable fair values and equity investments without readily determinable fair values. The Company generally recognizes equity investments that do not have readily determinable fair values at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer.

The following table is a summary of the activity related to equity investments (in millions):

	December 31, 2021 Carrying Value	Changes in Fair Value[(1)]	Sales/Purchases	March 31, 2022 Carrying Value	Reported as:	
					Prepaids and other current assets	Intangible and other assets, net
Equity investments with readily determinable value (Level 1)	$ 26.9	$ (17.2)	$ —	$ 9.7	$ 9.7	$ —
Equity investments without readily determinable value (Level 2)	$ 15.6	$ (0.1)	$ 20.0	$ 35.5	$ —	$ 35.5

[(1)] Recorded in Interest and other income (expense), net.

In September 2021, Broncus Holding Corporation (“Broncus”) completed an initial public offering (“IPO”) of common shares on the Stock Exchange of Hong Kong. Upon completion of its IPO, the Company’s preferred shares of Broncus were converted into common shares, which have a readily determinable value (Level 1). The Company was restricted from selling these shares for a period of six months. For the three months ended March 31, 2022, we recognized an unrealized loss on this investment of $17.2 million reflected in changes in fair value for Level 1 equity investments, which was reflected in Interest and other income (expense), net.

There were no decreases in fair value reflected in net income due to impairments.

Foreign Currency Derivatives

The objective of the Company’s hedging program is to mitigate the impact of changes in currency exchange rates on net cash flow from foreign currency-denominated sales, expenses, intercompany balances, and other monetary assets or liabilities denominated in currencies other than the U.S. dollar (“USD”). The terms of the Company’s derivative contracts are generally twelve months or shorter. The derivative assets and liabilities are measured using Level 2 fair value inputs.

Cash Flow Hedges

The Company enters into currency forward contracts as cash flow hedges to hedge certain forecasted revenue transactions denominated in currencies other than the USD, primarily the Euro (“EUR”), the British Pound (“GBP”), the Japanese Yen (“JPY”), and the Korean Won (“KRW”). The Company also enters into currency forward contracts as cash flow hedges to hedge certain forecasted expense transactions denominated in EUR and the Swiss Franc (“CHF”).

For these derivatives, the Company reports the unrealized after-tax gain or loss from the hedge as a component of accumulated other comprehensive income/(loss) in stockholders’ equity and reclassifies the amount into earnings in the same period in which the hedged transaction affects earnings. The amounts reclassified to revenue and expenses related to the hedged transactions and the ineffective portions of cash flow hedges were not material for the periods presented.

Other Derivatives Not Designated as Hedging Instruments

Other derivatives not designated as hedging instruments consist primarily of forward contracts that the Company uses to hedge intercompany balances and other monetary assets or liabilities denominated in currencies other than the USD, primarily the EUR, GBP, JPY, KRW, CHF, Indian Rupee ("INR"), Mexican Peso ("MXN"), Chinese Yuan ("CNY"), and New Taiwan Dollar ("TWD").

These derivative instruments are used to hedge against balance sheet foreign currency exposures. The related gains and losses were as follows (in millions):

	Three Months Ended March 31,	
	2022	2021
Recognized gains/(losses) in Interest and other income (expense), net	$ 6.8	$ 7.4
Foreign exchange gains/(losses) related to balance sheet re-measurement	$ (10.1)	$ (7.1)

Additionally, in January 2021, the Company settled a collar contract previously entered into to hedge its equity investment in Teladoc Health, Inc. For the three months ended March 31, 2021, a loss of $7.5 million was recognized in Interest and other income (expense), net.

The notional amounts for derivative instruments provide one measure of the transaction volume. Total gross notional amounts (in USD) for outstanding derivatives and the aggregate gross fair value at the end of each period were as follows (in millions):

	Derivatives Designated as Hedging Instruments		Derivatives Not Designated as Hedging Instruments	
	March 31, 2022	December 31, 2021	March 31, 2022	December 31, 2021
Notional amounts:				
Forward contracts	$ 186.0	$ 181.2	$ 330.0	$ 318.8
Gross fair value recorded in:				
Prepaids and other current assets	$ 6.9	$ 5.7	$ 6.8	$ 6.9
Other accrued liabilities	$ 0.4	$ 0.5	$ 1.9	$ 0.8

NOTE 4. BALANCE SHEET DETAILS AND OTHER FINANCIAL INFORMATION

Balance Sheet Details

The following tables provide details of selected balance sheet line items (in millions):

	As of	
Inventory	March 31, 2022	December 31, 2021
Raw materials	$ 261.3	$ 214.6
Work-in-process	113.8	96.4
Finished goods	277.9	276.1
Total inventory	$ 653.0	$ 587.1

	As of	
Prepaids and other current assets	March 31, 2022	December 31, 2021
Prepaid taxes	$ 12.8	$ 4.3
Equity investments	9.7	26.9
Net investment in sales-type leases–short-term	110.2	110.3
Other prepaids and other current assets	125.8	129.6
Total prepaids and other current assets	$ 258.5	$ 271.1

	As of	
Other accrued liabilities–short-term	March 31, 2022	December 31, 2021
Taxes payable	$ 113.3	$ 54.1
Current portion of deferred and contingent purchase consideration	7.6	12.0
Other accrued liabilities	257.4	235.2
Total other accrued liabilities–short-term	$ 378.3	$ 301.3

	As of	
Other long-term liabilities	March 31, 2022	December 31, 2021
Income taxes–long-term	$ 281.7	$ 316.6
Deferred revenue–long-term	38.4	36.8
Other long-term liabilities	89.2	100.3
Total other long-term liabilities	$ 409.3	$ 453.7

Supplemental Cash Flow Information

The following table provides supplemental non-cash investing and financing activities (in millions):

	Three Months Ended March 31,	
	2022	2021
Equipment transfers, including operating lease assets, from inventory to property, plant, and equipment	$ 60.9	$ 73.5
Acquisition of property, plant, and equipment in accounts payable and accrued liabilities	$ 53.5	$ 27.6

NOTE 5. REVENUE AND CONTRACT ACQUISITION COSTS

The following table presents revenue disaggregated by types and geography (in millions):

	Three Months Ended March 31,	
U.S.	2022	2021
Instruments and accessories	$ 550.6	$ 500.8
Systems	248.3	202.7
Services	165.9	144.0
Total U.S. revenue	$ 964.8	$ 847.5
Outside of U.S. ("OUS")		
Instruments and accessories	$ 259.7	$ 205.1
Systems	179.8	166.0
Services	83.4	73.5
Total OUS revenue	$ 522.9	$ 444.6
Total		
Instruments and accessories	$ 810.3	$ 705.9
Systems	428.1	368.7
Services	249.3	217.5
Total revenue	$ 1,487.7	$ 1,292.1

Remaining Performance Obligations

The transaction price allocated to remaining performance obligations relates to amounts allocated to products and services for which revenue has not yet been recognized. A significant portion of these performance obligations relate to service obligations in the Company's system sale and lease arrangements that will be satisfied and recognized as revenue in future periods. The transaction price allocated to the remaining performance obligations was $1.80 billion as of March 31, 2022. The remaining performance obligations are expected to be satisfied over the term of the system sale, lease, and service arrangements, which are generally up to 5 years.

Contract Assets and Liabilities

The following information summarizes the Company's contract assets and liabilities (in millions):

	As of	
	March 31, 2022	December 31, 2021
Contract assets	$ 50.9	$ 46.9
Deferred revenue	$ 424.4	$ 414.0

The Company invoices its customers based on the billing schedules in its sales arrangements. Payments are generally due 30 to 60 days from date of invoice. Contract assets for the periods presented primarily represent the difference between the revenue that was recognized based on the relative standalone selling price of the related performance obligations satisfied and the contractual billing terms in the arrangements. Deferred revenue for the periods presented primarily relates to service contracts where the service fees are billed up-front, generally quarterly or annually, prior to those services having been performed. The associated deferred revenue is generally recognized over the term of the service period. The Company did not have any significant impairment losses on its contract assets for the periods presented.

During the three months ended March 31, 2022, the Company recognized $193 million of revenue that was included in the deferred revenue balance as of December 31, 2021. During the three months ended March 31, 2021, the Company recognized $154 million, of revenue that was included in the deferred revenue balance as of December 31, 2020.

Intuitive System Leasing

The following table presents revenue from Intuitive System Leasing arrangements (in millions):

	Three Months Ended March 31,	
	2022	2021
Sales-type lease revenue	$ 35.6	$ 17.3
Operating lease revenue*	$ 83.2	$ 59.0
*Variable lease revenue relating to usage-based arrangements included within operating lease revenue	$ 24.9	$ 13.5

Trade Accounts Receivable

The allowance for doubtful accounts is based on the Company's assessment of the collectibility of customer accounts. The Company regularly reviews the allowance by considering factors such as historical experience, credit quality, the age of the accounts receivable balances, and current economic conditions that may affect a customer's ability to pay. For the three months ended March 31, 2022, and 2021, bad debt expense was not material.

The Company's exposure to credit losses may increase if its customers are adversely affected by changes in healthcare laws, coverage, and reimbursement, economic pressures or uncertainty associated with local or global economic recessions, disruption associated with the current COVID-19 pandemic, or other customer-specific factors. Although the Company has historically not experienced significant credit losses, it is possible that there could be a material adverse impact from potential adjustments of the carrying amount of lease and trade receivables as hospital cash flows are impacted by their response to the COVID-19 pandemic and deferral of elective surgical procedures.

NOTE 6. LEASES

Lessor Information

Sales-type Leases. Lease receivables relating to sales-type lease arrangements are presented on the Condensed Consolidated Balance Sheets as follows (in millions):

	As of	
	March 31, 2022	December 31, 2021
Gross lease receivables	$ 409.7	$ 404.0
Unearned income	(12.4)	(11.4)
Subtotal	397.3	392.6
Allowance for credit loss	(3.5)	(3.6)
Net investment in sales-type leases	$ 393.8	$ 389.0
Reported as:		
Prepaids and other current assets	$ 110.2	$ 110.3
Intangible and other assets, net	283.6	278.7
Total, net	$ 393.8	$ 389.0

Contractual maturities of gross lease receivables as of March 31, 2022, are as follows (in millions):

Fiscal Year	Amount
Remainder of 2022	$ 91.8
2023	110.4
2024	97.1
2025	67.5
2026	35.9
2027 and thereafter	7.0
Total	$ 409.7

The Company enters into sales-type leases with certain qualified customers to purchase its systems. Sales-type leases have terms that generally range from 24 to 84 months and are usually collateralized by a security interest in the underlying assets. The allowance for loan loss is based on the Company's assessment of current expected lifetime losses on lease receivables. The Company regularly reviews the allowance by considering factors such as historical experience, credit quality, age of the lease receivable balances, and current economic conditions that may affect a customer's ability to pay. Lease receivables are considered past due 90 days after invoice.

The Company manages the credit risk in net investment in sales-type leases using a number of factors, including, but not limited to the following: size of operations; profitability, liquidity, and debt ratios; payment history; and past due amounts. The Company also uses credit scores obtained from external providers as a key indicator for the purposes of determining credit quality. The following table summarizes the amortized cost basis by year of origination and by credit quality for the net investment in sales-type leases as of March 31, 2022 (in millions):

	2022	2021	2020	2019	2018	Prior	Net Investment
Credit Rating:							
High	$ 13.9	$ 126.7	$ 57.9	$ 21.1	$ 4.7	$ 2.2	$ 226.5
Moderate	24.1	72.2	41.2	13.3	7.2	1.4	159.4
Low	—	2.5	8.5	—	0.4	—	11.4
Total	$ 38.0	$ 201.4	$ 107.6	$ 34.4	$ 12.3	$ 3.6	$ 397.3

For the three months ended March 31, 2022, and 2021, credit losses related to net investment in sales-type leases were not material.

NOTE 7. GOODWILL AND INTANGIBLE ASSETS

Acquisitions

There were no material acquisitions for the three months ended March 31, 2022, and 2021.

Goodwill

The following table summarizes the changes in the carrying amount of goodwill (in millions):

	Amount
Balance as of December 31, 2021	$ 343.6
Acquisition activity	—
Translation and other	(0.4)
Balance as of March 31, 2022	$ 343.2

Intangible Assets

The following table summarizes the components of gross intangible assets, accumulated amortization, and net intangible asset balances as of March 31, 2022, and December 31, 2021 (in millions):

	March 31, 2022			December 31, 2021		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Patents and developed technology	$ 219.3	$ (176.9)	$ 42.4	$ 219.3	$ (173.2)	$ 46.1
Distribution rights and others	25.9	(20.3)	5.6	26.3	(19.4)	6.9
Customer relationships	31.4	(15.3)	16.1	31.8	(14.3)	17.5
Total intangible assets	$ 276.6	$ (212.5)	$ 64.1	$ 277.4	$ (206.9)	$ 70.5

Amortization expense related to intangible assets was $6.1 million and $6.9 million for the three months ended March 31, 2022, and 2021, respectively.

The estimated future amortization expense related to intangible assets as of March 31, 2022, is as follows (in millions):

Fiscal Year	Amount
Remainder of 2022	$ 17.4
2023	18.8
2024	14.8
2025	9.6
2026	2.8
2027 and thereafter	0.7
Total	$ 64.1

The preceding expected amortization expense is an estimate. Actual amounts of amortization expense may differ from estimated amounts due to additional intangible asset acquisitions, measurement-period adjustments to intangible assets, changes in foreign currency exchange rates, impairments of intangible assets, accelerated amortization of intangible assets, and other events.

NOTE 8. CONTINGENCIES

From time to time, the Company is involved in a variety of claims, lawsuits, investigations, and proceedings relating to securities laws, product liability, intellectual property, insurance, contract disputes, employment, and other matters. Certain of these lawsuits and claims are described in further detail below. It is not possible to predict what the outcome of these matters will be, and the Company cannot guarantee that any resolution will be reached on commercially reasonable terms, if at all.

A liability and related charge to earnings are recorded in the Financial Statements for legal contingencies when the loss is considered probable and the amount can be reasonably estimated. The assessment is re-evaluated each accounting period and is based on all available information, including the impact of negotiations, settlements, rulings, advice of legal counsel, and other information and events pertaining to each case. Nevertheless, it is possible that additional future legal costs (including settlements, judgments, legal fees, and other related defense costs) could have a material adverse effect on the Company's business, financial position, and future results of operations.

Product Liability Litigation

The Company is currently named as a defendant in a number of individual product liability lawsuits filed in various state and federal courts. The plaintiffs generally allege that they or a family member underwent surgical procedures that utilized the da Vinci Surgical System and sustained a variety of personal injuries and, in some cases, death as a result of such surgery. Several of the filed cases have trial dates in the next 12 months.

The cases raise a variety of allegations including, to varying degrees, that plaintiffs' injuries resulted from purported defects in the da Vinci Surgical System and/or failure on the Company's part to provide adequate training resources to the healthcare professionals who performed plaintiffs' surgeries. The cases further allege that the Company failed to adequately disclose and/or misrepresented the potential risks and/or benefits of the da Vinci Surgical System. Plaintiffs also assert a variety of causes of action, including, for example, strict liability based on purported design defects, negligence, fraud, breach of express and implied warranties, unjust enrichment, and loss of consortium. Plaintiffs seek recovery for alleged personal injuries and, in many cases, punitive damages. The Company disputes these allegations and is defending against these claims.

The Company's estimate of the anticipated cost of resolving the pending cases is based on negotiations with attorneys for the claimants. The final outcome of the pending lawsuits and claims, and others that might arise, is dependent on many variables that are difficult to predict, and the ultimate cost associated with these product liability lawsuits and claims may be materially different than the amount of the current estimate and accruals and could have a material adverse effect on the Company's business, financial position, and future results of operations. Although there is a reasonable possibility that a loss in excess of the amount recognized exists, the Company is unable to estimate the possible loss or range of loss in excess of the amount recognized at this time.

Patent Litigation

On June 30, 2017, Ethicon LLC, Ethicon Endo-Surgery, Inc., and Ethicon US LLC (collectively, "Ethicon") filed a complaint for patent infringement against the Company in the U.S. District Court for the District of Delaware. The complaint, which was served on the Company on July 12, 2017, alleges that the Company's EndoWrist Stapler instruments infringe several of Ethicon's patents. Ethicon asserts infringement of U.S. Patent Nos. 9,585,658; 8,479,969; 9,113,874; 8,998,058; 8,991,677; 9,084,601; and 8,616,431. A claim construction hearing occurred on October 1, 2018, and the Court issued a scheduling order on December 28, 2018. On March 20, 2019, the Court granted the Company's Motion to Stay pending an Inter Partes Review to be held at the Patent Trademark and Appeals Board to review patentability of six of the seven patents noted above and vacated the trial date. On August 1, 2019, the Court granted the parties' joint stipulation to modify the stay in light of Ethicon's U.S. International Trade Commission ("USITC") complaint against Intuitive involving U.S. Patent Nos. 8,479,969 and 9,113,874, discussed below. There is currently no trial date scheduled for this matter.

On August 27, 2018, Ethicon filed a second complaint for patent infringement against the Company in the U.S. District Court for the District of Delaware. The complaint alleges that the Company's SureForm 60 Staplers infringe five of Ethicon's patents. Ethicon asserts infringement of U.S. Patent Nos. 9,884,369; 7,490,749; 8,602,288; 8,602,287; and 9,326,770. The Company filed an answer denying all claims. On March 19, 2019, Ethicon filed a Motion for Leave to File a First Amended Complaint, removing allegations related to U.S. Patent No. 9,326,770 and adding allegations related to U.S. Patent Nos. 9,844,379 and 8,479,969. On July 17, 2019, the Court entered an order denying the amendment, without prejudice, and granting the parties' joint stipulation to stay the case in its entirety in light of the USITC investigation involving U.S. Patent Nos. 9,844,369 and 7,490,749, discussed below. There is currently no trial date scheduled for this matter.

Based on currently available information, the Company is unable to make a reasonable estimate of loss or range of losses, if any, arising from these matters.

On May 30, 2019, Ethicon filed a complaint with the USITC, asserting infringement of U.S. Patent Nos. 9,884,369 ("'369"); 7,490,749 ("'749"); 9,844,379 ("'379"); 9,113,874 ("'874"); and 8,479,969 ("'969"). On June 28, 2019, the USITC voted to institute an investigation (No. 337-TA-1167) with respect to the claims in this complaint. The accused products include the Company's EndoWrist 30, EndoWrist 45, SureForm 45, and SureForm 60 Staplers, as well as the stapler reload cartridges. In March 2020, Ethicon dismissed its claims concerning the '749 patent. The evidentiary hearing took place in February 2021. On June 8, 2021, the Chief Administrative Law Judge issued an Initial Determination concluding that (1) the accused products do not infringe the asserted claims in the '874 or '969 patents; (2) the asserted claims in the '874 and '969 patents are invalid; (3) the accused SureForm staplers and associated reload cartridges infringe two claims of the '369 patent; (4) the accused SureForm staplers and associated reload cartridges infringe two claims of the '379 patent; and (5) the Company was estopped from contending that the asserted claims in the '379 patent are invalid. Ethicon has not challenged the Initial Determination with regard to the findings that absolve Intuitive of any liability regarding the accused EndoWrist staplers and associated reload cartridges. On October 14, 2021, the USITC issued its Opinion in which it made the following rulings: (1) the USITC absolved Intuitive from any liability regarding the '874, '969, and '369 patents; and (2) the USITC found that, while the SureForm staplers and their associated reload cartridges infringe the asserted claims in the '379 patent, it has suspended the imposition of any remedial order pending an opinion from the Federal Circuit Court of Appeal of whether the Patent and Trademark Office correctly found the asserted claims in this patent to be invalid. The Company and Ethicon have filed Notices of Appeal regarding the USITC Opinion. A lifting of the suspension of any remedial order by the USITC could result in a prohibition on importing the accused SureForm products into the U.S. or necessitating workarounds. Based on currently available information, the Company does not believe that any losses arising from this matter would be material.

Commercial Litigation

On February 27, 2019, Restore Robotics LLC and Restore Repair LLC ("Restore") filed a complaint in the Northern District of Florida alleging anti-trust claims against the Company. On May 13, 2019, Restore filed an amended complaint alleging anti-trust claims relating to the da Vinci Surgical System and EndoWrist service, maintenance, and repair processes. On September 16, 2019, the Court partially granted and partially denied the Company's Motion to Dismiss the amended complaint.

On September 30, 2019, the Company filed an answer denying the anti-trust allegations and filed a counterclaim against Restore. The Company filed amended counterclaims after the Court partially granted and partially denied Restore's Motion to

Dismiss the counterclaim. The amended counterclaims allege that Restore violated the Federal Lanham Act, the Federal Computer Fraud and Abuse Act, and Florida's Deceptive and Unfair Trade Practices Act and that Restore is also liable to the Company for Unfair Competition and Tortious Interference with Contract. On January 7, 2020, the Court denied Restore's Motion to Dismiss the amended counterclaims.

On April 11, 2022, the Court granted in part and denied in part the parties' Motions for Summary Judgment and ordered the parties to confer and advise the Court of available times for a case management conference and to schedule the case for trial. On April 13, 2022, the Company filed a Motion for Reconsideration to the Court's Summary Judgment Order based on 1) a recently-issued U.S. Food and Drug Administration ("FDA") decision concluding that alterations made by Restore's licensor on the EndoWrist instruments in question required review and clearance by the FDA before the instruments could be used, and 2) recently received documents from the government pursuant to a Freedom of Information Act request filed in 2020. While the Court has not yet acted on the Company's Motion for Reconsideration, it has set a case management conference for April 27, 2022. Based on currently available information, the Company is unable to make a reasonable estimate of loss or range of losses, if any, arising from these matters.

On September 28, 2020, Rebotix Repair Inc. ("Rebotix") filed a complaint in the Middle District of Florida alleging anti-trust claims against the Company relating to EndoWrist service, maintenance, and repair processes. The complaint was formally served on the Company on October 6, 2020. On March 8, 2021, the Court partially granted and partially denied the Company's Motion to Dismiss the complaint. The Company filed an answer denying the anti-trust allegations and filed counterclaims against Rebotix. The counterclaims allege that Rebotix violated the Federal Lanham Act and Florida's Deceptive and Unfair Trade Practices Act and that Rebotix is also liable to the Company for Tortious Interference with Contract.

Motions for Summary Judgment have been filed by the Company and Rebotix. On April 1, 2022, the Court stayed this case based on Rebotix's representation that the FDA would soon be issuing a decision on whether Rebotix's services require 510(k) clearance. On April 11, 2022, Rebotix filed a Notice of FDA Decision, which included correspondence from the FDA concluding that Rebotix's activities constituted remanufacturing and would require FDA review and clearance. On April 13, 2022, the Court issued an Order directing the parties to confer and file a joint status report by May 4, 2022, on how the FDA's decision impacts this case and how the parties wish to proceed. Based on currently available information, the Company is unable to make a reasonable estimate of loss or range of losses, if any, arising from this matter.

Similar to the claims asserted in the Restore case, on May 10, 2021, Surgical Instrument Service Company, Inc. filed a complaint in the Northern District of California Court alleging anti-trust claims against the Company relating to EndoWrist service, maintenance, and repair processes. The Court denied the Company's Motion to Dismiss, and discovery has commenced. Based on currently available information, the Company is unable to make a reasonable estimate of loss or range of losses, if any, arising from this matter.

Three class action complaints were filed against the Company in the Northern District of California Court alleging anti-trust allegations relating to the service and repair of certain instruments manufactured by the Company. A complaint by Larkin Community Hospital was filed on May 20, 2021, a complaint by Franciscan Alliance, Inc. and King County Public Hospital District No. 1 was filed on July 6, 2021, and a complaint by Kaleida Health was filed on July 8, 2021. The Court has consolidated the Franciscan Alliance, Inc. and King County Public Hospital District No. 1 and Kaleida Health cases with the Larkin Community Hospital case, which is now captioned on the Larkin docket as "In Re: da Vinci Surgical Robot Antitrust Litigation." A Consolidated Amended Class Action Complaint has been filed on behalf of each plaintiff named in the earlier-filed cases. On January 14, 2022, Kaleida Health voluntarily dismissed itself as a party to this case. On January 18, 2022, the Company filed an answer against the plaintiffs in this matter, and discovery has commenced. Based on currently available information, the Company is unable to make a reasonable estimate of loss or range of losses, if any, arising from these matters.

NOTE 9. STOCKHOLDERS' EQUITY

Stockholders' Equity

The following tables present the changes in stockholders' equity (in millions):

	Three Months Ended March 31, 2022							
	Common Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income	Total Intuitive Surgical, Inc. Stockholders' Equity	Noncontrolling Interest in Joint Venture	Total Stockholders' Equity
	Shares	Amount						
Beginning balance	357.7	$ 0.4	$ 7,164.0	$ 4,760.9	$ (24.2)	$ 11,901.1	$ 50.4	$ 11,951.5
Issuance of common stock through employee stock plans	2.2	—	80.0	—	—	80.0	—	80.0
Shares withheld related to net share settlement of equity awards	(0.6)	—	(6.1)	(166.1)	—	(172.2)	—	(172.2)
Share-based compensation expense related to employee stock plans	—	—	120.8	—	—	120.8	—	120.8
Repurchase and retirement of common stock	(0.4)	—	(4.1)	(102.4)	—	(106.5)	—	(106.5)
Net income attributable to Intuitive Surgical, Inc.	—	—	—	365.6	—	365.6	—	365.6
Other comprehensive income (loss)	—	—	—	—	(86.5)	(86.5)	0.4	(86.1)
Net income attributable to noncontrolling interest in joint venture	—	—	—	—	—	—	3.8	3.8
Ending balance	358.9	$ 0.4	$ 7,354.6	$ 4,858.0	$ (110.7)	$ 12,102.3	$ 54.6	$ 12,156.9

	Three Months Ended March 31, 2021							
	Common Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Intuitive Surgical, Inc. Stockholders' Equity	Noncontrolling Interest in Joint Venture	Total Stockholders' Equity
	Shares	Amount						
Beginning balance	353.1	$ 0.4	$ 6,444.9	$ 3,261.3	$ 24.9	$ 9,731.5	$ 27.6	$ 9,759.1
Issuance of common stock through employee stock plans	2.8	—	84.0	—	—	84.0	—	84.0
Shares withheld related to net share settlement of equity awards	(0.7)	—	(5.1)	(172.9)	—	(178.0)	—	(178.0)
Share-based compensation expense related to employee stock plans	—	—	103.2	—	—	103.2	—	103.2
Net income attributable to Intuitive Surgical, Inc.	—	—	—	426.3	—	426.3	—	426.3
Other comprehensive income	—	—	—	—	(13.5)	(13.5)	0.2	(13.3)
Net income attributable to noncontrolling interest in joint venture	—	—	—	—	—	—	8.9	8.9
Ending balance	355.2	$ 0.4	$ 6,627.0	$ 3,514.7	$ 11.4	$ 10,153.5	$ 36.7	$ 10,190.2

Stock Repurchase Program

The Company's Board of Directors (the "Board") has authorized an aggregate of $7.5 billion of funding for the Company's common stock repurchase program (the "Repurchase Program") since its establishment in March 2009. The most recent authorization occurred in January 2019 when the Board increased the authorized amount available under the Repurchase Program to $2.0 billion. As of March 31, 2022, the remaining amount of share repurchases authorized by the Board was $1.5 billion.

The following table provides share repurchase activities (in millions, except per share amounts):

	Three Months Ended March 31,	
	2022	2021
Shares repurchased	0.4	—
Average price per share	$ 268.0	$ —
Value of shares repurchased	$ 106.5	$ —

Accumulated Other Comprehensive Income (Loss), Net of Tax, Attributable to Intuitive Surgical, Inc.

The components of accumulated other comprehensive income (loss), net of tax, attributable to Intuitive Surgical, Inc. are as follows (in millions):

	Three Months Ended March 31, 2022				
	Gains (Losses) on Hedge Instruments	Unrealized Gains (Losses) on Available-for-Sale Securities	Foreign Currency Translation Gains (Losses)	Employee Benefit Plans	Total
Beginning balance	$ 4.5	$ (16.0)	$ (7.9)	$ (4.8)	$ (24.2)
Other comprehensive income (loss) before reclassifications	3.7	(90.8)	3.1	—	(84.0)
Amounts reclassified from accumulated other comprehensive income (loss)	(2.7)	0.1	—	0.1	(2.5)
Net current-period other comprehensive income (loss)	1.0	(90.7)	3.1	0.1	(86.5)
Ending balance	$ 5.5	$ (106.7)	$ (4.8)	$ (4.7)	$ (110.7)

	Three Months Ended March 31, 2021				
	Gains (Losses) on Hedge Instruments	Unrealized Gains (Losses) on Available-for-Sale Securities	Foreign Currency Translation Gains (Losses)	Employee Benefit Plans	Total
Beginning balance	$ (2.9)	$ 29.5	$ 4.7	$ (6.4)	$ 24.9
Other comprehensive income (loss) before reclassifications	4.6	(10.0)	(9.7)	—	(15.1)
Amounts reclassified from accumulated other comprehensive income (loss)	1.5	—	—	0.1	1.6
Net current-period other comprehensive income (loss)	6.1	(10.0)	(9.7)	0.1	(13.5)
Ending balance	$ 3.2	$ 19.5	$ (5.0)	$ (6.3)	$ 11.4

NOTE 10. SHARE-BASED COMPENSATION

In April 2021, the Company's shareholders approved an amended and restated 2010 Incentive Award Plan to provide for an increase in the number of shares of common stock reserved for issuance thereunder from 97,350,000 to 103,350,000. As of March 31, 2022, approximately 21.4 million shares were reserved for future issuance under the Company's stock plans. A maximum of approximately 9.3 million of these shares can be awarded as restricted stock units ("RSUs").

Stock Options Information

A summary of stock option activity under all stock plans for the three months ended March 31, 2022, is presented as follows (in millions, except per share amounts):

	Stock Options Outstanding	
	Number Outstanding	Weighted-Average Exercise Price Per Share
Balance as of December 31, 2021	11.7	$ 125.07
Options granted	0.5	$ 290.51
Options exercised	(0.4)	$ 79.29
Options forfeited/expired	—	$ 226.29
Balance as of March 31, 2022	11.8	$ 134.03

As of March 31, 2022, options to purchase an aggregate of 9.4 million shares of common stock were exercisable at a weighted average price of $104.08 per share.

Restricted Stock Units Information

A summary of RSUs activity under all stock plans for the three months ended March 31, 2022, is presented as follows (in millions, except per share amounts):

	Shares	Weighted-Average Grant-Date Fair Value
Unvested balance as of December 31, 2021	4.8	$ 207.37
RSUs granted	1.5	$ 290.84
RSUs vested	(1.6)	$ 186.75
RSUs forfeited	(0.1)	$ 223.75
Unvested balance as of March 31, 2022	4.6	$ 241.94

Performance Share Units

Beginning in 2022, in addition to RSUs and stock options, the Company granted performance share units (“PSUs”) to officers and other key employees subject to three-year cliff vesting and pre-established, quantitative goals. Whether any PSUs vest, and the amount that does vest, is tied to completion of service over three years and the achievement of three equally-weighted, quantitative goals that directly align with or help drive the Company’s strategy and long-term total shareholder return. The metrics are focused on relative total shareholder return (“TSR”), year-over-year procedure growth for 2023, and two-year compound annual procedure growth for 2024. TSR is considered a market condition, and the expense is determined at the grant date. This expense will not be adjusted even if the market condition is not met. The two procedure growth goals are considered performance conditions, and the expense is recorded over the vesting period based on the forecasted performance, which will be reassessed each reporting period based on the probability of achieving the two performance conditions. The number of shares earned at the end of the three-year period will vary, based on actual performance, from 0% to 125% of the target number of PSUs granted. PSUs are subject to forfeiture if employment terminates prior to the vesting date. PSUs are not considered issued or outstanding shares of the Company.

The Company calculates the fair value for each component of the PSUs individually. The fair value for the component with the TSR metric was determined using Monte Carlo simulation. The fair value per share for the components with the procedure growth metrics is equal to the closing stock price on the grant date. As part of the Company’s annual grant in 2022, 0.1 million PSUs were granted at a weighted-average grant-date fair value of $299.32.

Employee Stock Purchase Plan

Under the Employee Stock Purchase Plan (“ESPP”), employees purchased approximately 0.2 million shares for $47.8 million and approximately 0.3 million shares for $41.4 million during the three months ended March 31, 2022, and 2021, respectively.

Share-based Compensation Expense

The following table summarizes share-based compensation expense for the three months ended March 31, 2022, and 2021 (in millions):

	Three Months Ended March 31,	
	2022	2021
Cost of sales–products	$ 18.7	$ 15.3
Cost of sales–services	5.6	5.7
Total cost of sales	24.3	21.0
Selling, general, and administrative	60.3	53.1
Research and development	36.8	30.1
Share-based compensation expense before income taxes	121.4	104.2
Income tax benefit	27.2	20.6
Share-based compensation expense after income taxes	$ 94.2	$ 83.6

The Black-Scholes option pricing model is used to estimate the fair value of stock options granted under the Company's share-based compensation plans and rights to acquire stock granted under the ESPP. The weighted-average estimated fair values of stock options and the rights to acquire stock under the ESPP, as well as the weighted-average assumptions used in calculating the fair values of stock options and the rights to acquire stock under the ESPP that were granted during the three months ended March 31, 2022, and 2021, were as follows:

	Three Months Ended March 31,	
	2022	2021
Stock Options		
Risk-free interest rate	1.6%	0.7%
Expected term (in years)	3.5	4.3
Expected volatility	35%	34%
Fair value at grant date	$80.80	$70.33
ESPP		
Risk-free interest rate	0.8%	0.1%
Expected term (in years)	1.2	1.2
Expected volatility	37%	35%
Fair value at grant date	$88.85	$74.39

NOTE 11. INCOME TAXES

Income tax expense (benefit) for the three months ended March 31, 2022, was $33.0 million, or 8.2% of income before taxes, compared to $13.6 million, or 3.0% of income before taxes, for the three months ended March 31, 2021.

The effective tax rates for the three months ended March 31, 2022, and 2021, differed from the U.S. federal statutory rate of 21% mainly due to excess tax benefits associated with employee equity plans, the effect of income earned by certain overseas entities being taxed at rates lower than the federal statutory rate, and the federal research and development ("R&D") credit benefit, partially offset by U.S. tax on foreign earnings and state income taxes (net of federal benefit).

The provision for income taxes for the three months ended March 31, 2022, reflected the impact of a change in U.S. tax law effective January 1, 2022, which requires the capitalization and amortization of research and experimental ("R&E") expenditures incurred after December 31, 2021.

The provision for income taxes for the three months ended March 31, 2022, and 2021, included excess tax benefits associated with employee equity plans of $53.0 million and $73.4 million, which reduced the Company's effective tax rate by 13.2 and 16.4 percentage points, respectively.

The Company files federal, state, and foreign income tax returns in many U.S. and OUS jurisdictions. Years before 2016 are closed for the significant jurisdictions. Certain of the Company's unrecognized tax benefits could change due to activities of various tax authorities, including potential assessment of additional tax, possible settlement of audits, or through normal expiration of various statutes of limitations, which could affect the Company's effective tax rate in the period in which they change. Due to the uncertainty related to the timing and potential outcome of audits, the Company cannot estimate the range of reasonably possible change in unrecognized tax benefits that may occur in the next 12 months.

The Company is subject to the examination of its income tax returns by the Internal Revenue Service ("IRS") and other tax authorities. The outcome of these audits cannot be predicted with certainty. The Company's management regularly assesses the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of the Company's provision for income taxes. If any issues addressed in the Company's tax audits are resolved in a manner not consistent with management's expectations, the Company could be required to adjust its provision for income taxes in the period such resolution occurs.

NOTE 12. NET INCOME PER SHARE

The following table presents the computation of basic and diluted net income per share attributable to Intuitive Surgical, Inc. (in millions, except per share amounts):

	Three Months Ended March 31,	
	2022	2021
Numerator:		
Net income attributable to Intuitive Surgical, Inc.	$ 365.6	$ 426.3
Denominator:		
Weighted average shares outstanding used in basic calculation	358.4	354.2
Add: dilutive effect of potential common shares	8.3	9.8
Weighted average shares outstanding used in diluted calculation	366.7	364.0
Net income per share attributable to Intuitive Surgical, Inc.:		
Basic	$ 1.02	$ 1.20
Diluted	$ 1.00	$ 1.17

Share-based compensation awards of approximately 1.5 million and 0.9 million shares for the three months ended March 31, 2022, and 2021, respectively, were outstanding but were not included in the computation of diluted net income per share attributable to Intuitive Surgical, Inc. common stockholders because the effect of including such shares would have been anti-dilutive in the periods presented.

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

In this report, "Intuitive Surgical," "Intuitive," the "Company," "we," "us," and "our" refer to Intuitive Surgical, Inc. and its wholly and majority-owned subsidiaries.

This management's discussion and analysis of financial condition as of March 31, 2022, and results of operations for the three months ended March 31, 2022, and 2021, should be read in conjunction with management's discussion and analysis of financial condition and results of operations included in our Annual Report on Form 10-K for the year ended December 31, 2021.

This report contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Forward-looking statements relate to expectations concerning matters that are not historical facts. Statements using words such as "estimates," "projects," "believes," "anticipates," "plans," "expects," "intends," "may," "will," "could," "should," "would," "targeted," and similar words and expressions are intended to identify forward-looking statements. These forward-looking statements are necessarily estimates reflecting the judgment of our management and involve a number of risks and uncertainties that could cause actual results to differ materially from those suggested by the forward-looking statements. These forward-looking statements include, but are not limited to, statements related to the expected impacts of the COVID-19 pandemic on our business, financial condition, and results of operations, future results of operations, future financial position, our financing plans and future capital requirements, our potential tax assets or liabilities, and statements based on current expectations, estimates, forecasts, and projections about the economies and markets in which we operate and our beliefs and assumptions regarding these economies and markets. These forward-looking statements should be considered in light of various important factors, including, but not limited to, the following: disruption to our supply chain, including increased difficulties in obtaining a sufficient supply of materials in the semiconductor and other markets; the risk that the COVID-19 pandemic could lead to material delays and cancellations of, or reduced demand for, procedures; curtailed or delayed capital spending by hospitals; closures of our facilities; delays in surgeon training; delays in gathering clinical evidence; delays in obtaining new product approvals, clearances, or certifications from the U.S. Food and Drug Administration ("FDA"); the evaluation of the risks of robotic-assisted surgery in the presence of infectious diseases; diversion of resources to respond to COVID-19 outbreaks; the risk that the COVID-19 virus causes economies in our key markets to enter prolonged recessions; the impact of global and regional economic and credit market conditions on healthcare spending; the risk of our inability to comply with complex FDA and other regulations, which may result in significant enforcement actions; regulatory approvals, clearances, certifications, and restrictions or any dispute that may occur with any regulatory body; guidelines and recommendations in the healthcare and patient communities; healthcare reform legislation in the U.S. and its impact on hospital spending, reimbursement, and fees levied on certain medical device revenues; changes in hospital admissions and actions by payers to limit or manage surgical procedures; the timing and success of product development and market acceptance of developed products; the results of any collaborations, in-licensing arrangements, joint ventures, strategic alliances, or partnerships, including the joint venture with Shanghai Fosun Pharmaceutical (Group) Co., Ltd.; our completion of and ability to successfully integrate acquisitions; intellectual property positions and litigation; competition in the medical device industry and in the specific markets of surgery in which we operate; risks associated with our operations and any expansion outside of the United States; unanticipated manufacturing disruptions or the inability to meet demand for products; our reliance on sole and single source suppliers; the results of legal proceedings to which we are or may become a party, including, but not limited to, product liability claims; adverse publicity regarding us and the safety of our products and adequacy of training; the impact of changes to tax legislation, guidance, and interpretations; changes in tariffs, trade barriers, and regulatory requirements; and other risk factors. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this report and which are based on current expectations and are subject to risks, uncertainties, and assumptions that are difficult to predict, including those risk factors described throughout this filing and identified under the heading "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2021, as updated by our other filings with the Securities and Exchange Commission. We undertake no obligation to publicly update or release any revisions to these forward-looking statements, except as required by law.

Intuitive®, Intuitive Surgical®, da Vinci®, da Vinci S®, da Vinci S HD Surgical System®, da Vinci Si®, da Vinci X®, da Vinci Xi®, da Vinci SP®, EndoWrist®, Firefly®, InSite®, SureForm®, Ion®, Iris®, and SynchroSeal® are trademarks or registered trademarks of the Company.

Overview

As part of Intuitive's mission, we believe that minimally invasive care is life-enhancing care. Intuitive is committed to advancing minimally invasive care through a comprehensive ecosystem of products and services. This ecosystem includes systems, instruments and accessories, learning, and services connected by a digital portfolio that enables precision and control, seamless interactions and experiences, and meaningful insights to drive better care.

Intuitive brings nearly three decades of experience and technical innovation to our robotic-assisted surgical solutions. While surgery and acute interventions have improved significantly in the past decades, there remains a significant need for better outcomes and decreased variability of these outcomes across care teams. The current healthcare environment continues to stress critical resources, including the professionals who staff care teams: surgeons, anesthesiologists, nurses, and other staff. At the same time, governments strain to cover the healthcare needs of their populations and demand lower total cost per patient to treat disease. In the face of these challenges, we believe scientific and technological advances in biology, computing, imaging, algorithms, and robotics may offer new methods to solve continued and difficult problems.

We address our customer needs by sharing their goals reflected in the quadruple aim. First, we focus on improving patient outcomes through an ecosystem of advanced robotic systems, instruments and accessories, progressive technology learning pathways, and comprehensive support and program assistance services. Second, we seek to improve the patient experience by minimizing disruption to lives and creating greater predictability for the treatment experience. Third, we seek to improve care team satisfaction by creating products and services that are dependable, smart, and optimized for the care environment in which they are used. Finally, we seek to lower the total cost to treat per patient episode when compared with existing treatment alternatives, providing a return on investment for hospitals and healthcare systems and value for payers.

Open surgery remains the predominant form of surgery and is used in almost every area of the body. However, the large incisions required for open surgery create trauma to patients, typically resulting in longer hospitalization and recovery times, increased hospitalization costs, and additional pain and suffering relative to minimally invasive surgery ("MIS"), where MIS is available. For over three decades, MIS has reduced trauma to patients by allowing selected surgeries to be performed through small ports rather than large incisions. MIS has been widely adopted for certain surgical procedures.

Da Vinci Surgical Systems enable surgeons to extend the benefits of MIS to many patients who would otherwise undergo a more invasive surgery by using computational, robotic, and imaging technologies to overcome many of the limitations of traditional open surgery or conventional MIS. Surgeons using a da Vinci Surgical System operate while seated comfortably at a console viewing a 3D, high-definition image of the surgical field. This immersive console connects surgeons to the surgical field and their instruments. While seated at the console, the surgeon manipulates instrument controls in a natural manner, similar to open surgical technique. Our technology is designed to provide surgeons with a range of articulation of the surgical instruments used in the surgical field analogous to the motions of a human wrist, while filtering out the tremor inherent in a surgeon's hand. In designing our products, we focus on making our technology easy and safe to use.

Our da Vinci products fall into five broad categories: da Vinci Surgical Systems, da Vinci instruments and accessories, da Vinci Stapling, da Vinci Energy, and da Vinci Vision, including Firefly Fluorescence imaging systems and da Vinci Endoscopes. We also provide a comprehensive suite of systems, learning, and services offerings. Digitally-enabled for more than two decades, these three offerings aim to decrease variability by providing dependable, consistent functionality and an integrated user experience. Our systems category includes robotic platforms, software, vision, energy, and instruments and accessories. Our learning category includes educational technology, such as simulation and telepresence, as well as technical training programs and personalized peer-to-peer learning opportunities. Our services category assists and optimizes minimally invasive programs through readiness, on-demand support, consultation for minimally invasive program optimization, and hospitals customized analytics. Within our integrated ecosystem, our focus is to decrease variability in surgery by offering actionable insights, with digital solutions, to take action with the potential to improve outcomes, personalize learning, and optimize efficiency. We take a holistic approach, offering intelligent technology and systems designed to work together to make MIS intervention more available and applicable.

We have commercialized the following da Vinci Surgical Systems: the da Vinci standard Surgical System in 1999, the da Vinci S Surgical System in 2006, the da Vinci Si Surgical System in 2009, and the fourth generation da Vinci Xi Surgical System in 2014. We have extended our fourth generation platform by adding the da Vinci X Surgical System, commercialized in 2017, and the da Vinci SP Surgical System, commercialized in 2018. The da Vinci SP Surgical System accesses the body through a single incision while the other da Vinci Surgical Systems access the body through multiple incisions. All da Vinci systems include a surgeon's console (or consoles), imaging electronics, a patient-side cart, and computational hardware and software. We are still in a measured launch of our da Vinci SP Surgical System, and we have an installed base of 106 da Vinci SP Surgical Systems as of March 31, 2022. Our plans for the rollout of the da Vinci SP Surgical System include putting systems in the hands of experienced da Vinci users first while we optimize training pathways and our supply chain. We received U.S. FDA clearances for the da Vinci SP Surgical System for urological and certain transoral procedures. We also received clearance in South Korea where the da Vinci SP Surgical System may be used for a broad set of procedures. We plan to seek FDA clearances for additional indications for da Vinci SP over time. We also plan to seek clearances in other OUS markets over time. The success of the da Vinci SP Surgical System is dependent on positive experiences and improved clinical outcomes for the procedures for which it has been cleared as well as securing additional clinical clearances.

We offer approximately 70 different multi-port da Vinci instruments to provide surgeons with flexibility in choosing the types of tools needed to perform a particular surgery. These multi-port instruments are generally robotically controlled and provide end effectors (tips) that are similar to those used in either open or laparoscopic surgery. We offer advanced

instrumentation for the da Vinci Xi and da Vinci X platforms, including da Vinci Energy and da Vinci Stapler products, to provide surgeons with sophisticated, computer-aided tools to precisely and efficiently interact with tissue. Da Vinci X and da Vinci Xi Surgical Systems share the same instruments whereas the da Vinci Si Surgical System uses instruments that are not compatible with da Vinci X or da Vinci Xi systems. We currently offer nine core instruments on our da Vinci SP Surgical System. We plan to expand the SP instrument offering over time.

Training technologies include our Intuitive Simulation products, our Intuitive Telepresence remote case observation and telementoring tools, and our dual console for use in surgeon proctoring and collaborative surgery.

During the first quarter of 2019, the FDA cleared our Ion endoluminal system to enable minimally invasive biopsies in the lung. Our Ion system extends our commercial offering beyond surgery into diagnostic procedures with this first application. Our rollout of the Ion system is progressing well, and we are continuing to gather additional clinical evidence. We plan to seek additional clearances for the Ion system in OUS markets over time.

The success of new product introductions depends on a number of factors including, but not limited to, pricing, competition, market and consumer acceptance, the effective forecasting and management of product demand, inventory levels, the management of manufacturing and supply costs, and the risk that new products may have quality or other defects in the early stages of introduction.

COVID-19 Pandemic

Procedures

In 2021, COVID-19 resurgences continued to affect da Vinci procedure volumes at various times throughout the year in most of the markets that we operate in. After each resurgence, as COVID-19 cases and hospitalizations subsided, we saw procedure volumes recover. In the U.S., the impact of high COVID-related hospitalization rates on procedure volumes also have been exacerbated by staffing shortages. Although hospitals are now better equipped to handle COVID patients as compared to the outset of the pandemic, COVID-19 resurgences have challenged, and will continue to challenge, hospital resources and negatively impact da Vinci procedure volumes. In addition, delays in diagnosis and treatment of underlying conditions have, and will continue to have, a negative impact on da Vinci procedure volumes. Volumes associated with benign procedures have generally been impacted to a higher degree when COVID-19 cases and hospitalizations increased, reflecting the deferability of certain elective surgeries.

In the first quarter of 2022, the most recent COVID-19 resurgence resulted in a significant increase in infections and hospitalization rates in the U.S. and certain countries in Europe, which, in turn, negatively impacted procedure volumes in January and February. As infections and hospitalizations started to decrease in February in the U.S. and Europe, we saw a recovery of procedure volumes. In March, we also saw a resurgence in COVID-19 cases and increased hospitalizations impacting parts of Asia, which negatively impacted procedure volumes.

The depth and extent to which the COVID-19 pandemic will impact individual markets will vary based on the availability of vaccinations, personal protective equipment, intensive care units and operating rooms, and medical staff, as well as government interventions. The impact of COVID-19 on our procedure volumes varies widely by country, region, and type. When COVID-19 infection rates spike in a particular region, procedure volumes have been negatively impacted and the diagnoses of new conditions and their related treatments have been deferred.

System Demand

In general, we believe that the COVID-19 pandemic had less of an impact on hospital spending capacity and that customers recognize that da Vinci surgery meets their quadruple aim objectives better than other surgical approaches. More specifically, during the first quarter of 2022, system demand reflected procedure growth, hospitals purchasing systems in preparation for a post-COVID-19 pandemic environment, and hospitals upgrading their system portfolio to access and/or standardize on fourth generation capabilities. However, hospitals are currently experiencing financial and operational pressures as a result of staffing shortages, the supply chain environment, and resulting inflation that could impact their ability to provide patient care, defer elective surgeries, and impact their profitability. Since the start of the pandemic, the impact of COVID-19 has placed a significant burden on hospitals; however, the financial pressures that our customers have faced has been partially mitigated by government funding. In addition, the rising interest rate environment has made access to credit more expensive. To the extent that hospitals continue to face financial pressures, reductions in government spending, or higher interest rates, it is likely that hospitals' spend on capital equipment will be adversely impacted. In addition, as competition progresses in various markets, we will likely experience longer selling cycles and pricing pressures.

General Increase in Risks

Worldwide economies have been significantly impacted by the COVID-19 pandemic, and it is possible that factors related to the COVID-19 pandemic could cause a prolonged recession in local and/or global economies. Such an economic recession could have a material adverse effect on our long-term business as hospitals curtail and reduce capital and overall spending. The

COVID-19 pandemic and local actions, such as "shelter-in-place" orders and restrictions on our ability to travel and access our customers or temporary closures of our facilities, including our training and manufacturing operations, or the facilities of our suppliers and their contract manufacturers, could further significantly impact our sales and our ability to produce and ship our products and supply our customers.

In particular, we have experienced increased difficulties in obtaining a sufficient supply of a number of component materials used in our products, such as semiconductor components as well as a range of other materials, including, but not limited to, metals and polymers, as global supply has become significantly constrained due to increased demand for certain materials. Additionally, prices of such materials have increased due to the increased demand and supply shortage. We are engaged in activities to seek to mitigate supply disruptions, but we have experienced a reduction in our safety stock levels. Moreover, the global supply chain shortages are likely to remain a challenge for the foreseeable future.

We have also experienced challenges in logistics, as certain shipping routes have been impacted by port closures. Such global shortages in important components and logistics challenges have resulted in, and will continue to cause, inflationary cost pressure in our supply chain. To date, the inflationary cost pressure has been more pronounced in our logistics costs, but these supply chain challenges have not materially impacted our results of operations or ability to deliver products and services to our customers. However, if shortages in important supply chain materials in the semiconductor or other markets or logistics challenges continue, we could fail to meet product demand, which could result in deferred or cancelled procedures. Additionally, if inflationary pressures in logistics or component costs persist, we may not be able to quickly or easily adjust pricing, reduce costs, or implement countermeasures, all of which would adversely impact our business, financial condition, results of operations, or cash flows.

Increased labor shortages globally, including staff burnout and attrition, could also impact our ability to hire and retain personnel critical to our manufacturing, logistics, and commercial operations. We are also highly dependent on the principal members of our management and scientific staff. Attracting and retaining qualified personnel is critical to our success, and competition for them has become more intense. The loss of critical members of our team, or our inability to attract and retain qualified personnel, could significantly harm our operations, business, and ability to compete. In addition, hospitals are also experiencing staffing shortages and supply chain issues that could impact their ability to provide patient care. Any of these events could negatively impact the number of da Vinci procedures performed or the number of system placements and have a material adverse effect on our business, financial condition, results of operations, or cash flows.

Our Response

Our priorities and actions during the COVID-19 pandemic have been and remain as follows. First, we are focused on the health and safety of all those we serve–patients, customers, our communities, and our employees–implementing continuous updates to our health and safety policies and processes. Second, we are supporting our customers according to their priorities–clinical, operational, and economic–and ensuring continuity of supply by working with our suppliers and our distributors. Third, we are securing our workforce economically. We have built a valuable team over the years, and we believe they will be important in a recovery that follows the pandemic. Finally, we will continue to invest in our priority development programs while eliminating avoidable spend.

As COVID-19 vaccination rates increase and cases decline, we have enhanced our focus on evaluating and implementing our return-to-office strategy. We intend to remain flexible, allowing many of our employees to work remotely on at least a partial basis, while maintaining productivity and our culture. Our top priority in this process continues to be the health and safety of our employees.

Business Model

Overview

We generate revenue from the placements of da Vinci Surgical Systems, in sales or sales-type lease arrangements where revenue is recognized up-front or in operating lease transactions and usage-based models where revenue is recognized over time. We earn recurring revenue from the sales of instruments, accessories, and services, as well as the revenue from operating leases. The da Vinci Surgical System generally sells for between $0.5 million and $2.5 million, depending upon the model, configuration, and geography, and represents a significant capital equipment investment for our customers when purchased. Our instruments and accessories have limited lives and will either expire or wear out as they are used in surgery, at which point they need to be replaced. We generally earn between $600 and $3,500 of instruments and accessories revenue per surgical procedure performed, depending on the type and complexity of the specific procedures performed and the number and type of instruments used. Further, in late 2020, we launched our Extended Use Program (refer to further discussion immediately below) in the U.S. and Europe, with the intention to reduce the cost for customers to treat patients, which in turn will reduce our overall instruments and accessories revenue per procedure. We typically enter into service contracts at the time systems are sold or leased at an annual fee between $80,000 and $190,000, depending upon the configuration of the underlying system and

composition of the services offered under the contract. These service contracts have generally been renewed at the end of the initial contractual service periods.

We generate revenue from our Ion endoluminal system in a business model consistent with the da Vinci Surgical System model described above. We generate revenue from the placement of Ion systems, in sales or sales-type lease arrangements where revenue is recognized up-front at a point in time or in operating lease transactions and usage-based models where revenue is recognized over time. We earn recurring revenue from the sales of instruments and accessories used in biopsies and ongoing system service, as well as revenue from operating leases. The average selling price of an Ion system is generally significantly lower than the average selling price of a da Vinci Surgical System. For the three months ended March 31, 2022, and 2021, Ion's contribution to revenue and gross margin was not significant.

Additionally, as part of our ecosystem of products and services, we provide a portfolio of learning offerings and digital solutions. We do not currently generate material revenue from these offerings.

Extended Use Program

In 2020, we introduced our "Extended Use Program," which consists of select da Vinci Xi and da Vinci X instruments possessing 12 to 18 uses ("Extended Use Instruments") compared to previously 10 uses. These Extended Use Instruments represent some of our higher volume instruments but exclude stapling, monopolar, and advanced energy instruments. Instruments included in the program are used across a number of da Vinci surgeries. Their increased uses are the result of continuous, significant investments in the design and production capabilities of our instruments, resulting in improved quality and durability. Extended Use Instruments were introduced in the U.S. and Europe in the fourth quarter of 2020 and launched in most other countries around the world in the first half of 2021, except China due to regulatory timelines. In addition, simultaneous with the regional launches of Extended Use Instruments, we have lowered the price of certain instruments that are most commonly used in lower acuity procedures and/or lower reimbursed procedures within the region. These actions have reduced the cost for customers to treat patients, which in turn has reduced our revenue per procedure. In the U.S. and Europe, during 2021, we saw customers adjust their instrument buying patterns to reduce their inventory levels to reflect the additional uses per instrument. We believe that, as of the end of 2021, in the U.S. and Europe, full cutover to Extended Use Instruments has occurred, as customers have substantially utilized all of their remaining 10 use instruments. The precise impact of these actions on future revenue will be dependent on the future volume and mix of procedures and whether cost elasticity will enable greater penetration into available markets.

Recurring Revenue

Recurring revenue consists of instruments and accessories revenue, service revenue, and operating lease revenue. Recurring revenue increased to $4.3 billion, or 75% of total revenue in 2021, compared to $3.4 billion, or 77% of total revenue in 2020, and $3.2 billion, or 72% of total revenue in 2019.

Instruments and accessories revenue has grown at a faster rate than systems revenue over time. Instruments and accessories revenue increased to $3.10 billion in 2021, compared to $2.46 billion in 2020 and $2.41 billion in 2019. The increase in instruments and accessories revenue largely reflects continued procedure adoption.

Service revenue was $916 million in 2021, compared to $724 million in 2020 and 2019. The increase in service revenue was primarily driven by the growth of the installed base of systems producing service revenue, as well as the effects of the Customer Relief Program in the prior year, which resulted in an $80 million decrease in service revenue in 2020. The installed base of da Vinci Surgical Systems grew 12% to approximately 6,730 as of December 31, 2021; 7% to approximately 5,989 as of December 31, 2020; and 12% to approximately 5,582 as of December 31, 2019. The installed base of Ion endoluminal systems was approximately 129 as of December 31, 2021; approximately 36 as of December 31, 2020; and approximately 10 as of December 31, 2019.

We use the installed base, number of placements, and utilization of systems as metrics for financial and operational decision-making and as a means to evaluate period-to-period comparisons. Management believes that the installed base, number of placements, and utilization of systems provide meaningful supplemental information regarding our performance, as management believes that the installed base, number of placements, and utilization of systems are an indicator of the rate of adoption of robotic-assisted surgery or medical procedures as well as an indicator of future recurring revenue (particularly service revenue). Management believes that both it and investors benefit from referring to the installed base, number of placements, and utilization of systems in assessing our performance and when planning, forecasting, and analyzing future periods. The installed base, number of placements, and utilization of systems also facilitate management's internal comparisons of our historical performance. We believe that the installed base, number of placements, and utilization of systems are useful to investors as metrics, because (1) they allow for greater transparency with respect to key metrics used by management in its financial and operational decision-making, and (2) they are used by institutional investors and the analyst community to help them analyze the performance of our business. The vast majority of systems installed are connected via the internet. System logs can also be accessed by field engineers for systems that are not connected to the internet. We utilize this information as

well as other information from agreements and discussions with our customers that involve estimates and judgments, which are, by their nature, subject to substantial uncertainties and assumptions. Estimates and judgments for determining the installed base, number of placements, and utilization of systems may be impacted over time by various factors, including system internet connectivity, hospital and distributor reporting behavior, and inherent complexities in new agreements. Such estimates and judgments are also susceptible to technical errors. In addition, the relationship between the installed base, number of placements, and utilization of systems and our revenues may fluctuate from period to period, and growth in the installed base, number of placements, and utilization of systems may not correspond to an increase in revenue. The installed base, number of placements, and utilization of systems are not intended to be considered in isolation or as a substitute for, or superior to, revenue or other financial information prepared and presented in accordance with GAAP.

Intuitive System Leasing

Since 2013, we have entered into sales-type and operating lease arrangements directly with certain qualified customers as a way to offer customers flexibility in how they acquire systems and expand their robotic-assisted programs while leveraging our balance sheet. These leases generally have commercially competitive terms as compared to other third-party entities that offer equipment leasing. We have also entered into usage-based arrangements with qualified customers that have committed da Vinci programs where we charge for the system and service as the systems are utilized. We believe that these alternative financing structures have been effective and well-received, and we are willing to expand the proportion of these structures based on customer demand. We include operating and sales-type leases, and systems placed under usage-based arrangements, in our system placement and installed base disclosures. We exclude operating lease-related revenue, usage-based revenue, and Ion system revenue from our da Vinci Surgical System average selling price ("ASP") computations.

In the years ended December 31, 2021, 2020, and 2019, we placed 668, 432, and 425 da Vinci Surgical Systems, respectively, under lease and usage-based arrangements, of which 517, 317, and 384 systems, respectively, were operating lease and usage-based arrangements. Revenue from operating lease arrangements is generally recognized on a straight-line basis over the lease term or, in the case of usage-based arrangements, as the systems are used. We generally set operating lease and usage-based pricing at a modest premium relative to purchased systems reflecting the time value of money and, in the case of usage-based arrangements, the risk that system utilization may fall short of anticipated levels. Variable lease revenue recognized from usage-based arrangements has been included in our operating lease metrics herein. Operating lease revenue has grown at a faster rate than overall systems revenue and was $277 million, $177 million, and $107 million for the years ended December 31, 2021, 2020, and 2019, respectively. As revenue for operating leases and usage-based systems is recognized over time, total systems revenue growth is reduced in a period when the number of operating lease and usage-based placements increases as a proportion of total system placements. Generally, lease transactions generate similar gross margins as our sale transactions. As of December 31, 2021, a total of 1,294 da Vinci Surgical Systems were installed at customers under operating lease or usage-based arrangements.

Our exposure to the credit risks relating to our lease financing arrangements may increase if our customers are adversely affected by changes in healthcare laws, coverage and reimbursement, economic pressures or uncertainty, or other customer-specific factors. In addition, as customers divert resources to the treatment of or the preparation to treat patients with COVID-19, we may be exposed to defaults under our lease financing arrangements. Moreover, usage-based arrangements generally contain no minimum payments; therefore, customers may exit such arrangements without paying a financial penalty to us. As a result of the COVID-19 pandemic, we anticipate that some customers will exit such arrangements or seek to amend the terms of our operating lease and usage-based arrangements with them.

For some operating lease arrangements, our customers are provided with the right to purchase the leased system at certain points during and/or at the end of the lease term. Revenue generated from customer purchases of systems under operating lease arrangements ("Lease Buyouts") was $96.0 million, $52.2 million, and $92.8 million for the years ended December 31, 2021, 2020, and 2019, respectively. We expect that revenue recognized from customer exercises of the buyout options will fluctuate based on the timing of when, and if, customers choose to exercise their buyout options.

Systems Revenue

System placements are driven by procedure growth in most markets. In some markets, system placements are constrained by regulation. In geographies where da Vinci procedure adoption is in an early stage or system placements are constrained by regulation, system sales will precede procedure growth. System placements also vary due to seasonality, largely aligned with hospital budgeting cycles. We typically place a higher proportion of annual system placements in the fourth quarter and a lower proportion in the first quarter as customer budgets are reset. Systems revenue is also affected by the proportion of system placements under operating lease and usage-based arrangements, recurring operating lease and usage-based revenue, operating lease buyouts, product mix, ASPs, trade-in activities, and customer mix. Systems revenue grew 44% to $1.69 billion in 2021. Systems revenue declined 12% to $1.18 billion in 2020. Systems revenue grew 19% to $1.35 billion in 2019. Based on the factors outlined in the *COVID-19 Pandemic* section above, we believe that historical system placement trends may not be a good indicator of future system placements.

Procedure Mix / Products

Our da Vinci Surgical Systems are generally used for soft tissue surgery for areas of the body between the pelvis and the neck, primarily in general surgery, gynecologic surgery, urologic surgery, cardiothoracic surgery, and head and neck surgery. Within these categories, procedures range in complexity from cancer and other highly complex procedures to less complex procedures for benign conditions. Cancer and other highly complex procedures tend to be reimbursed at higher rates than less complex procedures for benign conditions. Thus, hospitals are more sensitive to the costs associated with treating less complex, benign conditions. Our strategy is to provide hospitals with attractive clinical and economic solutions across the spectrum of procedure complexity. Our fully featured da Vinci Xi Surgical System with advanced instruments (including da Vinci Energy and EndoWrist and SureForm Stapler products) and our Integrated Table Motion product targets the more complex procedure segment. Our da Vinci X Surgical System is targeted towards price sensitive markets and procedures. Our da Vinci SP Surgical System complements the da Vinci Xi and X Surgical Systems by enabling surgeons to access narrow workspaces.

Procedure Seasonality

More than half of da Vinci procedures performed are for benign conditions, most notably hernia repairs, hysterectomies, and cholecystectomies. These benign procedures and other short-term elective procedures tend to be more seasonal than cancer operations and surgeries for other life-threatening conditions. Seasonality in the U.S. for procedures for benign conditions typically results in higher fourth quarter procedure volume when more patients have met annual deductibles and lower first quarter procedure volume when deductibles are reset. Seasonality outside the U.S. varies and is more pronounced around local holidays and vacation periods. As a result of the factors outlined in the *COVID-19 Pandemic* section above, including past and potentially future recommendations of authorities to defer elective procedures, historical procedure patterns may be disrupted.

Distribution Channels

We provide our products through direct sales organizations in the U.S., Europe (excluding Spain, Portugal, Italy, Greece, and most Eastern European countries), China (through our Intuitive-Fosun Pharma joint venture), Japan, South Korea, India, and Taiwan. In the remainder of our OUS markets, we provide our products through distributors.

Regulatory Activities

Overview

Our products must meet the requirements of a large and growing body of international standards that govern the product safety, efficacy, advertising, labeling, safety reporting design, manufacture, materials content and sourcing, testing, certification, packaging, installation, use, and disposal of our products. Examples of such standards include electrical safety standards, such as those of the International Electrotechnical Commission, and composition standards, such as the Reduction of Hazardous Substances and the Waste Electrical and Electronic Equipment Directives. Failure to meet these standards could limit our ability to market our products in those regions that require compliance to such standards.

Our products and operations are also subject to increasingly stringent medical device, privacy, and other regulations by regional, federal, state, and local authorities. After a device is placed on the market, numerous FDA and other regulatory requirements continue to apply. These requirements include establishment registration and device listing with the FDA and compliance with medical device reporting regulations, which require that manufacturers report to the FDA if their device caused or contributed, or may have caused or contributed, to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if it were to recur.

We anticipate an increase in medical device reporting filings due to changes in our reportability criteria (not reflective of any changes in product quality). We recently revised our medical device reporting policies, which had been developed based on previous feedback from the FDA. These revisions have been made in consultation with the FDA to better align with existing regulations.

We also anticipate that timelines for the introduction of new products and/or indications may be extended relative to past experience as a result of these regulations. For example, we have seen elongated regulatory approval timelines in the U.S. and the EU.

Clearances and Approvals

We have generally obtained the clearances required to market our products associated with our da Vinci Surgical Multiport Systems (Standard, S, Si, Xi, and X systems) for our targeted surgical specialties within the U.S., South Korea, Japan, and the European markets in which we operate. Since 2020, we obtained regulatory clearances for the following products:

- In February 2022, we received regulatory clearance in China to market both our 12 mm SureForm 45 Stapler and SureForm 60 Stapler and corresponding reloads.
- In January 2022, we received regulatory clearance in China to market our da Vinci Vessel Sealer Extend with up to 7 mm vascular indications.
- In December 2021, we obtained FDA clearance for our 8 mm SureForm 30 Curved-Tip Stapler and reloads for use in general, thoracic, gynecologic, urologic, and pediatric surgery. The 8 mm SureForm 30 stapler is expected to launch in the U.S. in 2022, with other countries to follow.
- In late 2020 and early 2021, we obtained FDA clearance, CE mark clearance, and other regulatory clearances in most of our significant markets to market our Extended Use Instruments.
- In November 2019, we obtained FDA clearance for our SynchroSeal instrument and E-100 generator. Following the FDA clearance, in February 2020, we received CE mark clearance for both products. In March 2020, we received regulatory clearance in Japan to market both our SynchroSeal instrument and E-100 generator. We received regulatory clearance in South Korea to market our SynchroSeal instrument and E-100 generator in January 2020 and August 2020, respectively.
- In June 2019, we received CE mark clearance for our da Vinci Endoscope Plus for the da Vinci Xi and da Vinci X Surgical Systems in Europe. Following the CE mark, in July 2019, we obtained FDA clearance for our da Vinci Endoscope Plus. We have also received regulatory clearances in South Korea and Japan to market our da Vinci Endoscope Plus in December 2019 and May 2020, respectively. In March 2022, we received regulatory clearance in China to market our da Vinci Endoscope Plus.
- In June 2019, we obtained FDA clearance for our da Vinci Handheld Camera and, in February 2020, we received CE mark clearance.

Refer to the descriptions of our new products that received regulatory clearances in 2022, 2021, and 2020 in the New Product Introductions section below.

In October 2018, the China National Health Commission published on its official website the quota for major medical equipment to be imported and sold in China through 2020. After an adjustment notice was published in the third quarter of 2020, the government will now allow for the total sale of 225 new surgical robots into China, which could include da Vinci Surgical Systems as well as surgical systems introduced by others. As of March 31, 2022, we have sold 168 da Vinci Surgical Systems under this quota, and two system quotas have expired; therefore, 55 surgical robots can still be imported and sold under this quota. Future sales of da Vinci Surgical Systems under the quota are uncertain, as they are dependent on hospitals completing a tender process and receiving associated approvals.

The Japanese Ministry of Health, Labor, and Welfare ("MHLW") considers reimbursement for procedures in April of even-numbered years. The process for obtaining reimbursement requires Japanese university hospitals and surgical societies, with our support, to seek reimbursement. There are multiple pathways to obtain reimbursement for procedures, including those that require in-country clinical data/economic data. In April 2012 and April 2016, the MHLW granted reimbursement status for prostatectomy and partial nephrectomy, respectively. Most prostatectomies and partial nephrectomies were open procedures prior to da Vinci reimbursement. Da Vinci procedure reimbursement for prostatectomy and partial nephrectomy procedures are higher than open and conventional laparoscopic procedure reimbursements. An additional 12 da Vinci procedures were granted reimbursement effective April 1, 2018, including gastrectomy, low anterior resection, lobectomy, and hysterectomy, for both malignant and benign conditions, and an additional seven da Vinci procedures were granted reimbursement effective April 1, 2020. An additional eight da Vinci procedures were granted reimbursement effective April 1, 2022, including colon resection. In addition, we received higher reimbursement for da Vinci gastrectomy procedures, as compared to open and conventional laparoscopic procedure reimbursements. The additional reimbursed procedures have varying levels of conventional laparoscopic penetration and will generally be reimbursed at rates equal to the conventional laparoscopic procedures. Given the reimbursement level and laparoscopic penetration for these additional procedures, there can be no assurance that the adoption pace for these procedures will be similar to prostatectomy or partial nephrectomy, given their higher reimbursement, or any other da Vinci procedure.

Recalls and Corrections

Medical device companies have regulatory obligations to correct or remove medical devices in the field that could pose a risk to health. The definition of "recalls and corrections" is expansive and includes repair, replacement, inspections, relabeling, and issuance of new or additional instructions for use or reinforcement of existing instructions for use and training when such actions are taken for specific reasons of safety or compliance. These field actions require stringent documentation, reporting, and monitoring worldwide. There are other actions that a medical device manufacturer may take in the field without reporting including, but not limited to, routine servicing and stock rotations.

As we determine whether a field action is reportable in any regulatory jurisdiction, we prepare and submit notifications to the appropriate regulatory agency for the particular jurisdiction. Regulators can require the expansion, reclassification, or change in scope and language of the field action. In general, upon submitting required notifications to regulators regarding a field action that is a recall or correction, we will notify customers regarding the field action, provide any additional documentation required in their national language, and arrange, as required, the return or replacement of the affected product or a field service visit to perform the correction.

Field actions, as well as certain outcomes from regulatory activities, can result in adverse effects on our business, including damage to our reputation, delays by customers of purchase decisions, reduction or stoppage of the use of installed systems, and reduced revenue as well as increased expenses.

Procedures

We model patient value as equal to *procedure efficacy / invasiveness*. In this equation, *procedure efficacy* is defined as a measure of the success of the surgery in resolving the underlying disease, and *invasiveness* is defined as a measure of patient pain and disruption of regular activities. When the patient value of a da Vinci procedure is greater than that of alternative treatment options, patients may benefit from seeking out surgeons and hospitals that offer da Vinci Surgery, which could potentially result in a local market share shift. Adoption of da Vinci procedures occurs procedure by procedure and market by market and is driven by the relative patient value and total treatment costs of da Vinci procedures as compared to alternative treatment options for the same disease state or condition.

We use the number and type of procedures as metrics for financial and operational decision-making and as a means to evaluate period-to-period comparisons. Management believes that the number and type of procedures provide meaningful supplemental information regarding our performance, as management believes procedure volume is an indicator of the rate of adoption of robotic-assisted surgery as well as an indicator of future revenue (including revenue from usage-based arrangements). Management believes that both it and investors benefit from referring to the number and type of procedures in assessing our performance and when planning, forecasting, and analyzing future periods. The number and type of procedures also facilitate management's internal comparisons of our historical performance. We believe that the number and type of procedures are useful to investors as metrics, because (1) they allow for greater transparency with respect to key metrics used by management in its financial and operational decision-making, and (2) they are used by institutional investors and the analyst community to help them analyze the performance of our business. The vast majority of systems installed are connected via the internet. System logs can also be accessed by field engineers for systems that are not connected to the internet. We utilize certain methods that rely on information collected from the systems installed for determining the number and type of procedures performed that involve estimates and judgments, which are, by their nature, subject to substantial uncertainties and assumptions. Estimates and judgments for determining the number and type of procedures may be impacted over time by various factors, including changes in treatment modalities, hospital and distributor reporting behavior, and system internet connectivity. Such estimates and judgments are also susceptible to algorithmic or other technical errors. In addition, the relationship between the number and type of procedures and our revenues may fluctuate from period to period, and procedure volume growth may not correspond to an increase in revenue. The number and type of procedures are not intended to be considered in isolation or as a substitute for, or superior to, revenue or other financial information prepared and presented in accordance with GAAP.

Worldwide Procedures

Our da Vinci systems and instruments are regulated independently in various countries and regions of the world. The discussion of indications for use and representative or target procedures is intended solely to provide an understanding of the market for da Vinci products and is not intended to promote for sale or use of any Intuitive product outside of its licensed or cleared labeling and indications for use.

The adoption of robotic-assisted surgery using the da Vinci Surgical System has the potential to grow for those procedures that offer greater patient value than to non-da Vinci alternatives and competitive total economics for healthcare providers. Our da Vinci Surgical Systems are used primarily in general surgery, urologic surgery, gynecologic surgery, cardiothoracic surgery, and head and neck surgery. We focus our organization and investments on developing, marketing, and training products and services for procedures in which da Vinci can bring patient value relative to alternative treatment options and/or economic

benefit to healthcare providers. Target procedures in general surgery include hernia repair (both ventral and inguinal), colorectal procedures, cholecystostomies, and bariatrics. Target procedures in urology include prostatectomy and partial nephrectomy. Target procedures in gynecology include hysterectomy for both cancer and benign conditions and sacrocolpopexy. In cardiothoracic surgery, target procedures include lobectomy. In head and neck surgery, target procedures include transoral surgery. Not all indications, procedures, or products described may be available in a given country or region or on all generations of da Vinci surgical systems. Surgeons and their patients need to consult the product labeling in their specific country and for each product in order to determine the cleared uses, as well as important limitations, restrictions, or contraindications.

In 2021, approximately 1,594,000 surgical procedures were performed with da Vinci Surgical Systems, compared to approximately 1,243,000 and 1,229,000 surgical procedures performed with da Vinci Surgical Systems in 2020 and 2019, respectively. The increase in our overall procedure volume in 2021 reflects the significant disruption caused by the COVID-19 pandemic in 2020, as noted in the *COVID-19 Pandemic* section above, and was driven by growth in U.S. general surgery and gynecology procedures and worldwide urology procedures.

U.S. Procedures

Overall U.S. procedure volume with da Vinci Surgical Systems grew to approximately 1,109,000 in 2021, compared to approximately 876,000 in 2020 and approximately 883,000 in 2019. General surgery was our largest and fastest growing U.S. specialty in 2020 with procedure volume that grew to approximately 589,000 in 2021, compared to approximately 434,000 in 2020 and approximately 421,000 in 2019. Gynecology was our second largest U.S. surgical specialty in 2021 with procedure volume that grew to approximately 316,000 in 2021, compared to approximately 267,000 in 2020 and approximately 282,000 in 2019. Urology was our third largest U.S. surgical specialty in 2021 with procedure volume that grew to approximately 153,000 in 2021, compared to approximately 134,000 in 2020 and approximately 138,000 in 2019.

Procedures Outside of the U.S.

Overall OUS procedure volume with da Vinci Surgical Systems grew to approximately 485,000 in 2021, compared to approximately 367,000 in 2020 and approximately 346,000 in 2019. Urology was our largest OUS specialty in 2021 with procedure volume that grew to approximately 264,000 in 2021, compared to approximately 214,000 in 2020 and approximately 206,000 in 2019. General surgery was our second largest OUS specialty in 2021 with procedure volume that grew to approximately 101,000 in 2021, compared to approximately 68,000 in 2020 and approximately 62,000 in 2019. Thoracic procedures also contributed to OUS procedure growth with higher growth rates than urology and general surgery procedures.

Recent Business Events and Trends

Procedures

Overall. Total da Vinci procedures performed by our customers grew approximately 19% for the three months ended March 31, 2022, compared to approximately 16% for the three months ended March 31, 2021. The first quarter procedure results for both periods reflect disruption caused by the COVID-19 pandemic, as noted in the *COVID-19 Pandemic* section above. The first quarter 2022 procedure growth was largely attributable to growth in U.S. general surgery and growth in OUS markets. Delays in both the diagnosis of and treatments of disease reflecting patient concerns over contracting COVID-19 has also impacted the number of procedures.

U.S. Procedures. U.S. da Vinci procedures grew approximately 16% for the three months ended March 31, 2022, compared to approximately 14% for the three months ended March 31, 2021. The first quarter procedure results for both periods reflect disruption caused by the COVID-19 pandemic, as noted in the *COVID-19 Pandemic* section above. The first quarter 2022 U.S. procedure growth was largely attributable to growth in general surgery procedures, most notably hernia repair, cholecystectomy, and bariatric procedures. Growth in the more mature gynecologic and urologic procedure categories was more moderate. During the COVID-19 pandemic, we believe patients have delayed non-urgent procedures to a greater extent than urgent procedures, particularly when patients are at higher risk of COVID-19.

OUS Procedures. OUS da Vinci procedures grew approximately 25% for the three months ended March 31, 2022, compared to approximately 23% for the three months ended March 31, 2021. The first quarter procedure results for both periods reflect disruption caused by the COVID-19 pandemic, as noted in the *COVID-19 Pandemic* section above. The first quarter 2022 OUS procedure growth was driven by continued growth in urologic procedures, including prostatectomies and partial nephrectomies, and earlier stage growth in general surgery (particularly colorectal), gynecology, and thoracic procedures. The first quarter 2022 OUS procedure growth rate reflects continued da Vinci adoption in European and Asian markets. We saw strong procedure growth in the UK, Italy, China, Germany, and Japan during the first quarter of 2022. However, particularly in March 2022, our procedure volume in China and South Korea was impacted by an increase in COVID-19 cases. We believe growth in our global markets is being driven by increased acceptance among surgeons and health systems, supported by expanded global evidence validating the clinical and economic value of da Vinci procedures.

System Demand

We placed 311 da Vinci Surgical Systems in the first quarter of 2022, compared to 298 systems in the first quarter of 2021. The increase in systems placed reflects procedure growth, customers trading in da Vinci Si Surgical Systems for fourth generation da Vinci systems in order to access fourth generation instruments and capabilities as well as to standardize their system portfolio, and further customer validation that da Vinci surgery addresses their quadruple aim objectives. However, we are experiencing some near-term softening of our capital placement pipeline in the U.S., and we believe the contributing factors may include a pull forward of demand into 2021 due to customer budget utilization at year-end, a reduction in the number of third generation da Vinci systems available for trade-in, and an overall tightening of hospital finances in 2022.

While first quarter 2022 placements grew 4% compared with 2021, future placements of da Vinci Surgical Systems will be impacted by a number of factors: supply chain risks; economic and geopolitical factors; inflationary pressures; the impact of the current COVID-19 pandemic, as noted in the *COVID-19 Pandemic* section above; rising interest rates; hospital response to the evolving healthcare environment; hospital staffing shortages; procedure growth rates; hospital consolidation trends; evolving system utilization and point of care dynamics; capital replacement trends, including a declining number of older generation systems available for trade-in transactions; additional reimbursements in various global markets, including Japan: the timing around governmental tenders and authorizations, including China; the timing of when we receive regulatory clearance in our other OUS markets for our da Vinci Xi Surgical System, da Vinci X Surgical System, and da Vinci SP Surgical System, and related instruments; and market response. Market acceptance of our da Vinci SP Surgical System and the nature and timing of additional da Vinci SP regulatory indications may also impact future system placements.

Demand may also be impacted by robotic-assisted surgery competition, including from companies that have introduced products in the field of robotic-assisted surgery or have made explicit statements about their efforts to enter the field including, but not limited to, the following companies: Asensus Surgical, Inc.; avateramedical GmbH; CMR Surgical Ltd.; Johnson & Johnson; Medicaroid, Inc.; Medrobotics Corporation; Medtronic plc; meerecompany Inc.; MicroPort Scientific Corporation; Olympus Corporation; Samsung Group; Shandong Weigao Group Medical Polymer Company Ltd.; and Titan Medical Inc.

Many of the above factors will also impact future demand for our Ion system, as we extend our commercial offering into diagnostics, along with additional factors associated with a new product introduction, including, but not limited to, our ability to optimize manufacturing and our supply chain, competition, clinical data to demonstrate value, and market acceptance.

New Product Introductions

SureForm 30 Curved-Tip Stapler and Reloads. In December 2021, we obtained FDA clearance for our 8 mm SureForm 30 Curved-Tip Stapler and reloads (gray, white, and blue) for use in general, thoracic, gynecologic, urologic, and pediatric surgery. It has been designed to help surgeons better visualize and reach anatomy through a combination of the 8 mm diameter instrument shaft and jaws, 120-degree cone of wristed articulation, and the curved tip. As it fits through the 8 mm da Vinci surgical system instrument cannula, the stapler allows different angles for surgeons to approach patient anatomy. Consistent with the other SureForm staplers, the 8 mm SureForm 30 Curved-Tip Stapler integrates SmartFire technology, which makes automatic adjustments to the firing process as staples are formed and the transection is made. The technology makes more than 1,000 measurements per second, helping achieve a consistent staple line. The 8 mm SureForm 30 stapler is expected to launch in the U.S. in 2022, with other countries to follow.

SynchroSeal and E-100 Generator. In November 2019, we obtained FDA clearance for our SynchroSeal instrument and E-100 generator. Following the FDA clearance, in February 2020, we received CE mark clearance for both products. In March 2020, we received regulatory clearance in Japan to market both our SynchroSeal instrument and E-100 generator. In August 2020, we received regulatory clearance in South Korea to market our E-100 generator. SynchroSeal is a single-use, bipolar, electrosurgical instrument intended for grasping, dissection, sealing, and transection of tissue. With its wristed articulation, rapid sealing cycle, and refined curved jaw, SynchroSeal offers enhanced versatility to the da Vinci Energy portfolio. The E-100 generator is an electrosurgical generator developed to power two key instruments–Vessel Sealer Extend and SynchroSeal–on the da Vinci X and da Vinci Xi Surgical Systems. The generator delivers high frequency energy for cutting, coagulation, and vessel sealing of tissues.

Da Vinci Endoscope Plus. In June 2019, we received CE mark clearance for our da Vinci Endoscope Plus, an enhanced 3D endoscope for use with our da Vinci X and Xi Surgical Systems. Following the CE mark, in July 2019, we obtained FDA clearance for our da Vinci Endoscope Plus. We have also received regulatory clearances in South Korea and Japan to market our da Vinci Endoscope Plus in December 2019 and May 2020, respectively. In March 2022, we received regulatory clearance in China to market our da Vinci Endoscope Plus. The da Vinci Endoscope Plus leverages new sensor technology to allow for increased sharpness and color accuracy.

Da Vinci Handheld Camera. In June 2019, we obtained FDA clearance for our da Vinci Handheld Camera, a lightweight, 2D camera head, which can be connected to third-party laparoscopes. This allows the laparoscopic image to be displayed on the da Vinci X/Xi vision cart to address aspects of da Vinci procedures that may require use of a laparoscope, thus eliminating the need for redundant equipment in the operating room and increasing procedure efficiency. In February 2020, we received CE mark clearance for our da Vinci Handheld Camera. We broadly launched the da Vinci Handheld Camera in our European direct markets as well as in the U.S. in May 2020 and June 2020, respectively.

First Quarter 2022 Operational and Financial Highlights

- Total revenue increased by 15% to $1.49 billion for the three months ended March 31, 2022, compared to $1.29 billion for the three months ended March 31, 2021.
- Approximately 428,000 da Vinci procedures were performed during the three months ended March 31, 2022, an increase of 19% compared to approximately 360,000 for the three months ended March 31, 2021.
- Approximately 3,940 Ion procedures were performed during the three months ended March 31, 2022, an increase of 348% compared to approximately 880 for the three months ended March 31, 2021.
- Instruments and accessories revenue increased by 15% to $810 million for the three months ended March 31, 2022, compared to $706 million for the three months ended March 31, 2021.
- Systems revenue increased by 16% to $428 million for the three months ended March 31, 2022, compared to $369 million during the three months ended March 31, 2021.
- During the three months ended March 31, 2022, we placed 311 da Vinci Surgical Systems, an increase of 4% compared to 298 systems during the three months ended March 31, 2021.
- As of March 31, 2022, we had a da Vinci Surgical System installed base of approximately 6,920 systems, an increase of 13% compared to the installed base of approximately 6,142 systems as of March 31, 2021.
- Utilization of da Vinci Surgical Systems, measured in terms of procedures per system per year, increased 6% relative to the first quarter of 2021.
- During the three months ended March 31, 2022, we placed 34 Ion systems, an increase of 143% compared to 14 systems during the three months ended March 31, 2021.
- As of March 31, 2022, we had an Ion system installed base of approximately 163 systems, an increase of 226% compared to the installed base of approximately 50 systems as of March 31, 2021.
- Gross profit as a percentage of revenue was 67.9% for the three months ended March 31, 2022, compared to 69.9% for the three months ended March 31, 2021.
- Operating income decreased by 2% to $408 million for the three months ended March 31, 2022, compared to $417 million during the three months ended March 31, 2021. Operating income included $121 million and $104 million of share-based compensation expense related to employee stock plans and $13.9 million and $8.1 million of intangible asset-related charges for the three months ended March 31, 2022, and 2021, respectively.
- As of March 31, 2022, we had $8.40 billion in cash, cash equivalents, and investments. Cash, cash equivalents, and investments decreased by $218 million, compared to $8.62 billion as of December 31, 2021, primarily as a result of cash used for taxes paid related to net share settlements of equity awards, share repurchases, and capital expenditures, as well as unrealized losses on interest-bearing debt securities classified as available for sale, partially offset by cash provided by operating activities and proceeds from stock option exercises and employee stock purchases.

Results of Operations

The following table sets forth, for the periods indicated, certain unaudited Condensed Consolidated Statements of Income information (in millions, except percentages):

	Three Months Ended March 31,			
	2022	% of Total Revenue	2021	% of Total Revenue
Revenue:				
Product	$ 1,238.4	83 %	$ 1,074.6	83 %
Service	249.3	17 %	217.5	17 %
Total revenue	1,487.7	100 %	1,292.1	100 %
Cost of revenue:				
Product	397.3	27 %	319.3	25 %
Service	80.7	5 %	70.2	5 %
Total cost of revenue	478.0	32 %	389.5	30 %
Product gross profit	841.1	56 %	755.3	58 %
Service gross profit	168.6	12 %	147.3	12 %
Gross profit	1,009.7	68 %	902.6	70 %
Operating expenses:				
Selling, general and administrative	391.1	26 %	326.0	25 %
Research and development	210.5	15 %	159.8	12 %
Total operating expenses	601.6	41 %	485.8	37 %
Income from operations	408.1	27 %	416.8	33 %
Interest and other income (expense), net	(5.7)	— %	32.0	2 %
Income before taxes	402.4	27 %	448.8	35 %
Income tax expense	33.0	2 %	13.6	1 %
Net income	369.4	25 %	435.2	34 %
Less: net income attributable to noncontrolling interest in joint venture	3.8	— %	8.9	1 %
Net income attributable to Intuitive Surgical, Inc.	$ 365.6	25 %	$ 426.3	33 %

Total Revenue

Total revenue increased by 15% to $1.5 billion for the three months ended March 31, 2022, compared to $1.3 billion for the three months ended March 31, 2021, resulting from 16% higher systems revenue, driven by 4% higher system placements, a lower proportion of system placements under operating leases, and higher leasing revenue, 15% higher instruments and accessories revenue, driven by approximately 19% higher procedure volume, partially offset by the effects of the Extended Use Program, and 15% higher service revenue.

Revenue denominated in foreign currencies as a percentage of total revenue was approximately 26% and 23% for the three months ended March 31, 2022, and 2021, respectively. We generally sell our products and services in local currencies where we have direct distribution channels. Foreign currency rate fluctuations did not have a material impact on total revenue for the three months ended March 31, 2022, nor for the three months ended and March 31, 2021.

Revenue generated in the U.S. accounted for 65% and 66% of total revenue for the three months ended March 31, 2022, and the three months ended March 31, 2021, respectively. We believe that U.S. revenue has accounted for the large majority of total revenue due to U.S. patients' ability to choose their provider and method of treatment, reimbursement structures supportive of innovation and MIS, and our initial investments focused on U.S. infrastructure. We have been investing in our business in the OUS markets, and our OUS procedures have grown faster in proportion to U.S. procedures. We expect that our OUS procedures and revenue will make up a greater portion of our business in the long term.

The following table summarizes our revenue and system unit placements for the three months ended March 31, 2022, and 2021, respectively (in millions, except percentages and unit placements):

	Three Months Ended March 31,	
	2022	2021
Revenue		
Instruments and accessories	$ 810.3	$ 705.9
Systems	428.1	368.7
Total product revenue	1,238.4	1,074.6
Services	249.3	217.5
Total revenue	$ 1,487.7	$ 1,292.1
United States	$ 964.8	$ 847.5
OUS	$ 522.9	$ 444.6
Total revenue	$ 1,487.7	$ 1,292.1
% of Revenue–U.S.	65 %	66 %
% of Revenue–OUS	35 %	34 %
Instruments and accessories	$ 810.3	$ 705.9
Services	249.3	217.5
Operating lease revenue	83.2	59.0
Total recurring revenue	$ 1,142.8	$ 982.4
% of Total revenue	77 %	76 %
Da Vinci Surgical Systems Placements by Region:		
U.S. unit placements	186	190
OUS unit placements	125	108
Total unit placements*	311	298
*Systems placed under operating leases (included in total unit placements)	108	127
Da Vinci Surgical Systems Placements involving System Trade-ins:		
Unit placements involving trade-ins	108	132
Unit placements not involving trade-ins	203	166
Ion Systems Placements**	34	14
**Systems placed under operating leases (included in total unit placements)	15	10

Product Revenue

Product revenue increased by 15% to $1.24 billion for the three months ended March 31, 2022, compared to $1.07 billion for the three months ended March 31, 2021.

Instruments and accessories revenue increased by 15% to $810 million for the three months ended March 31, 2022, compared to $706 million for the three months ended March 31, 2021. The increase in instruments and accessories revenue was driven primarily by procedure growth of approximately 19% and incremental sales of our advanced instruments. The increase was partially offset by the benefit of stocking orders in the three months ended March 31, 2021, associated with the launch our Extended Use Program in the U.S. and Europe and foreign currency impacts. The first quarter 2022 U.S. procedure growth was approximately 16%, driven by strong growth in general surgery procedures, most notably hernia repair, cholecystectomy, and bariatric procedures, as well as moderate growth in the more mature gynecologic and urologic procedures categories. The first quarter 2022 OUS procedure growth was approximately 25%, driven by continued growth in urology procedures, most notably prostatectomy and partial nephrectomy procedures, and earlier stage growth in general surgery (particularly colorectal), gynecology, and thoracic procedures. Both growth rates were impacted by the disruption caused by the COVID-19 pandemic,

as noted in the *COVID-19 Pandemic* section above. Geographically, the first quarter 2022 OUS procedure growth was driven by procedure expansion in the UK, Italy, China, Germany, and Japan.

Systems revenue increased by 16% to $428 million for the three months ended March 31, 2022, compared to $369 million for the three months ended March 31, 2021. The higher first quarter 2022 systems revenue was primarily driven by higher system placements, higher operating lease revenue, and a lower proportion of system placements under operating leases, partially offset by lower first quarter 2022 ASPs and lower lease buyouts.

During the first quarter of 2022, 311 da Vinci Surgical Systems were placed compared to 298 systems during the first quarter of 2021. By geography, 186 systems were placed in the U.S., 78 in Europe, 42 in Asia, and 5 in other markets during the first quarter of 2022, compared to 190 systems placed in the U.S., 59 in Europe, 44 in Asia, and 5 in other markets during the first quarter of 2021. The increase in systems placements was primarily driven by procedure growth, customers trading in da Vinci Si Surgical Systems for fourth generation da Vinci Xi and da Vinci X systems in order to access fourth generation instruments and capabilities as well as to standardize their system portfolio, and further customer validation that da Vinci surgery addresses their quadruple aim objectives. As of March 31, 2022, we had a da Vinci Surgical System installed base of approximately 6,920 systems, compared to the installed base of approximately 6,142 systems as of March 31, 2021.

We placed 128 and 137 da Vinci Surgical Systems under lease or usage-based arrangements, of which 108 and 127 systems were classified as operating leases for the three months ended March 31, 2022, and 2021, respectively. Operating lease revenue, including the impact of Ion systems, was $83.2 million for the three months ended March 31, 2022, compared to $59.0 million for the three months ended March 31, 2021. Da Vinci Surgical Systems placed as operating leases represented 35% of total placements during the first quarter of 2022, compared to 43% during the first quarter of 2021. A total of 1,377 da Vinci Surgical Systems were installed at customers under operating lease or usage-based arrangements as of March 31, 2022, compared to 1,006 as of March 31, 2021. Revenue from Lease Buyouts was $15.5 million for the three months ended March 31, 2022, compared to $19.1 million for the three months ended March 31, 2021. We expect revenue from Lease Buyouts to fluctuate period to period depending on the timing of when, and if, customers choose to exercise the buyout options embedded in their leases.

The da Vinci Surgical System ASP, excluding the impact of systems placed under operating lease or usage-based arrangements and Ion systems, was approximately $1.54 million for the three months ended March 31, 2022, compared to approximately $1.65 million for the three months ended March 31, 2021. The lower first quarter 2022 ASP was largely driven by unfavorable geographic mix and higher pricing discounts, partially offset by favorable product mix. ASP fluctuates from period to period based on geographic and product mix, product pricing, systems placed involving trade-ins, and changes in foreign exchange rates.

During the first quarter of 2022, 34 Ion systems were placed compared to 14 systems during the first quarter of 2021. As of March 31, 2022, we had an Ion system installed base of approximately 163 systems, compared to the installed base of approximately 50 systems as of March 31, 2021. We placed 19 and 12 Ion systems under lease or usage-based arrangements, of which 15 and 10 systems were classified as operating leases for the three months ended March 31, 2022, and 2021, respectively. Ion systems placed as operating leases represented 44% of total placements during the first quarter of 2022, compared to 71% during the first quarter of 2021. A total of 70 Ion systems were installed at customers under operating or usage-based arrangements as of March 31, 2022, compared to 21 as of March 31, 2021.

Service Revenue

Service revenue increased by 15% to $249 million for the three months ended March 31, 2022, compared to $218 million for the three months ended March 31, 2021. The increase in service revenue was primarily driven by a larger installed base of systems producing service revenue.

Gross Profit

Product gross profit for the three months ended March 31, 2022, increased by 11% to $841 million, representing 67.9% of product revenue, compared to $755 million, representing 70.3% of product revenue, for the three months ended March 31, 2021. The higher product gross profit for the three months ended March 31, 2022, was primarily driven by higher product revenue, partially offset by lower product gross profit margin. The lower product gross profit margin for the three months ended March 31, 2022, was primarily driven by higher freight and material costs, lower first quarter 2022 system ASPs, and higher fixed costs from investments to drive growth of the business and strengthen our operating capabilities.

Product gross profit for the three months ended March 31, 2022, and 2021, included share-based compensation expense of $18.7 million and $15.3 million, respectively, and intangible assets amortization expense of $3.6 million and $4.2 million, respectively.

Service gross profit for the three months ended March 31, 2022, increased by 14% to $169 million, representing 67.6% of service revenue, compared to $147 million, representing 67.7% of service revenue, for the three months ended March 31, 2021. The higher service gross profit for the three months ended March 31, 2022, was primarily driven by higher service revenue, reflecting a larger installed base of systems. The service gross profit margin for the three months ended March 31, 2022, was consistent with the three months ended March 31, 2021.

Service gross profit for the three months ended March 31, 2022, and 2021, included share-based compensation expense of $5.6 million and $5.7 million, respectively, and intangible assets amortization expense of $0.2 million and $0.3 million, respectively.

Selling, General and Administrative Expenses

Selling, general and administrative expenses include costs for sales, marketing, and administrative personnel, sales and marketing activities, trade show expenses, legal expenses, regulatory fees, and general corporate expenses.

Selling, general and administrative expenses for the three months ended March 31, 2022, increased by 20% to $391 million, compared to $326 million for the three months ended March 31, 2021. The increase in selling, general and administrative expenses for the three months ended March 31, 2021, was primarily driven by higher headcount, resulting in increased fixed and share-based compensation expense, higher variable compensation, and increased infrastructure costs to support our growth. In addition, there were higher marketing, travel, and training expenses in 2022, as compared with the prior year.

Selling, general and administrative expenses for the three months ended March 31, 2022, and 2021, included share-based compensation expense of $60.3 million and $53.1 million, respectively, and intangible assets amortization expense of $1.6 million and $1.7 million, respectively.

Selling, general and administrative expenses were 26% for the three months ended March 31, 2022, as a percentage of revenue, compared to 25% for the three months ended March 31, 2021, and 28% for the three months ended March 31, 2020. Our spending in the first quarter of 2022 reflected a continued but less pronounced curtailment of certain costs as a result of the COVID-19 pandemic, including travel, marketing events, clinical trials, and other related expenses. We expect that these costs will increase to the extent that the impact of COVID-19 decreases and decline to the extent that the impact of COVID-19 increases.

In addition, we expect spending to increase as a percentage of revenue as we continue to expand support for our customers, invest in innovation focused on the quadruple aim, and invest in manufacturing and our supply chain to ensure supply for our customers.

Research and Development Expenses

Research and development costs are expensed as incurred. Research and development expenses include costs associated with the design, development, testing, and significant enhancement of our products.

Research and development expenses for the three months ended March 31, 2022, increased by 32% to $211 million, compared to $160 million for the three months ended March 31, 2021. The increase in research and development expenses for the three months ended March 31, 2022, was primarily driven by higher personnel-related expenses, including share-based compensation expense, intangible asset charges, and other project costs incurred to support a broader set of product development initiatives, including Ion and SP platform investments, digital investments, advanced instrumentation, advanced imaging, and future generations of robotics.

Research and development expenses for the three months ended March 31, 2022, and 2021, included share-based compensation expense of $36.8 million and $30.1 million, respectively, and intangible asset charges of $8.5 million and $0.7 million, respectively.

Research and development expenses fluctuate with project timing. Based upon our broader set of product development initiatives and the stage of the underlying projects, we expect to continue to make substantial investments in research and development and anticipate that research and development expenses will continue to increase in the future.

Interest and Other Income (Expense), Net

Interest and other income (expense), net, for the three months ended March 31, 2022, and 2021, was $(5.7) million, and $32.0 million, respectively. The decrease in interest and other income (expense), net, for the three months ended March 31, 2022, was primarily driven by unrealized losses on investments resulting from strategic arrangements (compared to unrealized gains on investments resulting from strategic arrangements in the three months ended March 31, 2021) as well as higher foreign exchange losses.

We held an equity investment in preferred shares of Broncus Holding Corporation ("Broncus"), which was reflected in our financial statements on a cost basis. In the first quarter of 2021, we recorded an unrealized gain on our investment in Broncus of approximately $14 million. In September 2021, Broncus completed an initial public offering ("IPO") of common shares on the Stock Exchange of Hong Kong. Upon completion of the IPO, the preferred shares were converted to common shares in Broncus. We were restricted from selling these shares for a period of six months. In the first quarter of 2022, we recognized an unrealized loss on this investment of approximately $17 million.

Income Tax Expense

Income tax expense for the three months ended March 31, 2022, was $33.0 million, or 8.2% of income before taxes, compared to $13.6 million, or 3.0% of income before taxes, for the three months ended March 31, 2021.

Our effective tax rate for the three months ended March 31, 2022, and 2021, differs from the U.S. federal statutory rate of 21% primarily due to excess tax benefits associated with employee equity plans, the effect of income earned by certain overseas entities being taxed at rates lower than the federal statutory rate, and federal R&D credit benefit, partially offset by U.S. tax on foreign earnings and state income taxes (net of federal benefit). The increase in income tax expense for the three months ended March 31, 2022, was primarily due to the impact of capitalization of research and experimental ("R&E") expenditures and lower excess tax benefits, as discussed below, partially offset by lower pre-tax income.

Our provision for income taxes for the three months ended March 31, 2022, reflected the impact of a change in U.S. tax law effective January 1, 2022, which requires the capitalization and amortization of R&E expenditures incurred after December 31, 2021.

Our provision for income taxes for the three months ended March 31, 2022, and 2021, included excess tax benefits associated with employee equity plans of $53.0 million and $73.4 million, respectively, which reduced our effective tax rate by 13.2 and 16.4 percentage points, respectively. The amount of excess tax benefits or deficiencies will fluctuate from period to period based on the price of our stock, the volume of share-based awards settled or vested, and the value assigned to employee equity awards under U.S. GAAP, which results in increased income tax expense volatility.

We file federal, state, and foreign income tax returns in many jurisdictions in the U.S. and abroad. Years prior to 2016 are considered closed for most significant jurisdictions. Certain of our unrecognized tax benefits could change due to activities of various tax authorities, including evolving interpretations of existing tax laws in the jurisdictions we operate, potential assessment of additional tax, possible settlement of audits, or through normal expiration of various statutes of limitations, which could affect our effective tax rate in the period in which they change. Due to the uncertainty related to the timing and potential outcome of audits, we cannot estimate the range of reasonably possible change in unrecognized tax benefits that may occur in the next 12 months.

We are subject to the examination of our income tax returns by the IRS and other tax authorities. The outcome of these audits cannot be predicted with certainty. Management regularly assesses the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. If any issues addressed in our tax audits are resolved in a manner not consistent with management's expectations, we could be required to adjust our provision for income taxes in the period such resolution occurs.

Net Income Attributable to Noncontrolling Interest in Joint Venture

Net income attributable to noncontrolling interest in Joint Venture for the three months ended March 31, 2022, and 2021, was $3.8 million and $8.9 million, respectively. The decrease in net income attributable to noncontrolling interest in Joint Venture was primarily due to a decrease in sales and an increase in selling, general and administrative expenses in China during the three months ended March 31, 2022.

Liquidity and Capital Resources

Sources and Uses of Cash and Cash Equivalents

Our principal source of liquidity is cash provided by operations and by the issuance of common stock through the exercise of stock options and our employee stock purchase program. Cash and cash equivalents plus short- and long-term investments decreased by $0.22 billion to $8.40 billion as of March 31, 2022, from $8.62 billion as of December 31, 2021, primarily from cash used in taxes paid related to net share settlements of equity awards, share repurchases, and capital expenditures, as well as unrealized losses on interest-bearing debt securities classified as available for sale, partially offset by cash provided by our operations and proceeds from stock option exercises and employee stock purchases.

Our cash requirements depend on numerous factors, including market acceptance of our products, the resources we devote to developing and supporting our products, and other factors. We expect to continue to devote substantial resources to expand procedure adoption and acceptance of our products. We have made substantial investments in our commercial operations, product development activities, facilities, and intellectual property. Based on our business model, we anticipate that we will continue to be able to fund future growth through cash provided by our operations. We believe that our current cash, cash equivalents, and investment balances, together with income to be derived from the sale of our products, will be sufficient to meet our liquidity requirements for the foreseeable future. However, as a result of the COVID-19 pandemic, we may experience reduced cash flow from operations if we experience decreased revenues or if we extend payment terms on sales and operating lease and usage-based arrangements.

See "Item 7A. Quantitative and Qualitative Disclosures About Market Risk" in our Form 10-K for the fiscal year ended December 31, 2021, for discussion on the impact of interest rate risk and market risk on our investment portfolio.

Condensed Consolidated Cash Flow Data

The following table summarizes our cash flows for the three months ended March 31, 2022, and 2021 (in millions):

	Three Months Ended March 31,	
	2022	2021
Net cash provided by (used in):		
Operating activities	$ 223.0	$ 477.6
Investing activities	(214.7)	(597.0)
Financing activities	(199.9)	(102.2)
Effect of exchange rates on cash, cash equivalents, and restricted cash	3.8	0.8
Net increase (decrease) in cash, cash equivalents, and restricted cash	$ (187.8)	$ (220.8)

Operating Activities

For the three months ended March 31, 2022, net income of $369 million exceeded our net cash provided by operating activities of $223 million, primarily due to the following factors:

1. Changes in operating assets and liabilities resulted in $365 million of cash used in operating activities during the three months ended March 31, 2022. Accrued compensation and employee benefits decreased by $130 million, primarily due to payments of 2021 incentive compensation, and accounts receivable increased by $123 million, primarily due to the timing of billings and collections. Inventory, including the transfer of equipment from inventory to property, plant, and equipment, increased by $120 million, primarily to address the growth in the business as well as to mitigate risks of disruption that could arise from trade, supply, or other matters. Refer to further details in the supplemental cash flow information in Note 4 to the Condensed Consolidated Financial Statements (Unaudited). Prepaid expenses and other assets increased by $22 million, primarily due to an increase in net investments in sales-type leases. The unfavorable impact of these items on cash provided by operating activities was partially offset by a $21 million increase in other liabilities, primarily due to additional accruals related to capital expenditures, and an increase in deferred revenue by $11 million, primarily due to the increased volume of sales contracts.
2. The changes in operating assets and liabilities outlined above were partially offset by non-cash charges of $219 million included in our net income, consisting primarily of the following significant items: share-based compensation of $121 million; depreciation expense and losses on the disposal of property, plant, and equipment of $78 million; net losses on investments, accretion, and amortization of $26 million; and changes in deferred income taxes of $(14) million.

Investing Activities

Net cash used in investing activities for the three months ended March 31, 2022, consisted primarily of purchases of investments (net of proceeds from sales and maturities of investments) of $120 million and the acquisition of property and equipment of $95 million. We invest predominantly in high quality, fixed income securities. Our investment portfolio may, at any time, contain investments in U.S. treasury and U.S. government agency securities, taxable and tax-exempt municipal notes, corporate notes and bonds, commercial paper, non-U.S. government agency securities, cash deposits, and money market funds.

Financing Activities

Net cash used in financing activities during the three months ended March 31, 2022, consisted primarily of taxes paid on behalf of employees related to net share settlements of equity awards of $172 million and cash used in the repurchase of approximately 397,500 shares of our common stock in the open market for $107 million, partially offset by proceeds from stock option exercises and employee stock purchases of $80 million.

Capital Expenditures

Our business is not capital equipment intensive. However, with the growth of our business and our investments in property and facilities and in manufacturing automation, capital investments in these areas have increased. We expect these capital investments to increase significantly in 2022 to a range between $700 million and $900 million. A significant portion of this investment involves the construction of facilities to provide incremental space for growth, consolidate operations to enhance efficiency, and replace leased spaces with owned spaces. These capital investments will also expand our OUS footprint in support of opportunities for growth in key international markets. We intend to fund these capital investments with cash generated from operations.

Critical Accounting Estimates

The discussion and analysis of our financial condition and results of operations are based upon our Financial Statements, which have been prepared in accordance with U.S. GAAP. The preparation of these Financial Statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, and expenses. On an ongoing basis, we evaluate our critical accounting estimates. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. There have been no new or material changes to the critical accounting estimates discussed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, that are of significance, or potential significance, to the Company.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

There have been no material changes in our market risk during the three months ended March 31, 2022, compared to the disclosures in Part II, Item 7A of our Annual Report on Form 10-K for the year ended December 31, 2021.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow for timely decisions regarding required disclosure.

As required by SEC Rule 13a-15(b), we carried out an evaluation, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this report. Based on the foregoing, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting that occurred during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

The information included in Note 8 to the Condensed Consolidated Financial Statements (Unaudited) included in Part I, Item 1 of this quarterly report is incorporated herein by reference.

ITEM 1A. RISK FACTORS

You should carefully consider the factors discussed in Part I, "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, which could materially affect our business, financial position, or future results of operations. The risks described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, are not the only risks we face. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial position, or future results of operations. The risk factors set forth below updates, and should be read together with, the risk factors described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

RISKS RELATING TO OUR BUSINESS

THE INFLATIONARY ENVIRONMENT COULD MATERIALLY ADVERSELY IMPACT OUR BUSINESS AND RESULTS OF OPERATIONS.

Our operating results could be materially impacted by changes in the overall macroeconomic environment and other economic factors that impact customer confidence and spending, including capital spending. Changes in economic conditions, supply chain constraints, logistics challenges, labor shortages, the conflict in Ukraine, and steps taken by governments and central banks, particularly in response to the COVID-19 pandemic as well as other stimulus and spending programs, have led to higher inflation than previously experienced or expected, which is likely, in turn, to lead to an increase in costs. In a higher inflationary environment, we may be unable to raise the prices of our products and services sufficiently to keep up with the rate of inflation. Impacts from inflationary pressures could be more pronounced and materially adversely impact aspects of our business where revenue streams and cost commitments are linked to contractual agreements that extend further into the future, as we may not be able to quickly or easily adjust pricing, reduce costs, or implement counter measures.

Additionally, hospitals are currently experiencing financial and operational pressures as a result of staffing shortages, the supply chain environment, and increased inflation, which could impact their ability to access capital markets and other funding sources, increase cost of funding, or impede their ability to comply with debt covenants, all of which could impede their ability to provide patient care, defer elective surgeries, and impact their profitability. To the extent that hospitals continue to face financial pressures, reductions in government spending, or higher interest rates, it is likely that hospitals' ability or willingness to spend on capital equipment will be adversely impacted, all of which could have a material adverse effect on our business, financial condition, results of operations, or cash flows.

THE ONGOING ARMED CONFLICT BETWEEN RUSSIA AND UKRAINE COULD ADVERSELY AFFECT OUR BUSINESS, FINANCIAL CONDITION, AND RESULTS OF OPERATIONS.

On February 24, 2022, Russian military forces launched a military action in Ukraine, and sustained conflict and disruption in the region is likely. The length, impact, and outcome of this ongoing military conflict is highly unpredictable and could lead to significant market and other disruptions, including significant volatility in commodity prices and supply of energy resources, instability in financial markets, supply chain interruptions, political and social instability, trade disputes or trade barriers, changes in consumer or purchaser preferences, as well as an increase in cyberattacks and espionage.

Russia's recognition of two separatist republics in the Donetsk and Luhansk regions of Ukraine and subsequent military action against Ukraine have led to substantial expansion of sanction programs imposed by the United States, the European Union, the United Kingdom, Canada, Switzerland, Japan, and other countries against Russia, Belarus, the Crimea Region of Ukraine, the so-called Donetsk People's Republic, and the so-called Luhansk People's Republic, including, among others:

- blocking sanctions against some of the largest state-owned and private Russian financial institutions (and their subsequent removal from the Society for Worldwide Interbank Financial Telecommunication payment system) and certain Russian businesses, some of which have significant financial and trade ties to the European Union;
- blocking sanctions against Russian and Belarusian individuals, including the Russian President, other politicians, and those with government connections or involved in Russian military activities; and
- blocking of Russia's foreign currency reserves as well as expansion of sectoral sanctions and export and trade restrictions, limitations on investments and access to capital markets, and bans on various Russian imports.

In retaliation against new international sanctions and as part of measures to stabilize and support the volatile Russian financial and currency markets, the Russian authorities also imposed significant currency control measures aimed at restricting

the outflow of foreign currency and capital from Russia, imposed various restrictions on transacting with non-Russian parties, banned exports of various products, and imposed other economic and financial restrictions. The situation is rapidly evolving, and additional sanctions by Russia on the one hand, and by the other countries on the other hand, could adversely affect the global economy, financial markets, energy supply and prices, certain critical materials and metals, supply chains, and global logistics and could adversely affect our business, financial condition, and results of operations.

We are actively monitoring the situation in Ukraine and Russia and assessing its impact on our business, including our business partners and customers. To date, we have not experienced any material interruptions in our infrastructure, supplies, technology systems, or networks needed to support our operations. We have no way to predict the progress or outcome of the military conflict in Ukraine or its impacts in Ukraine, Russia, Belarus, Europe, or the U.S. The extent and duration of the military action, sanctions, and resulting market disruptions could be significant and could potentially have substantial impact on the global economy and our business for an unknown period of time. Any such disruption may also magnify the impact of other risks described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

CYBERATTACKS OR CYBERSECURITY INCIDENTS IN CONNECTION WITH THE POLITICAL UNCERTAINTY IN RUSSIA AND UKRAINE COULD EITHER DIRECTLY OR INDIRECTLY IMPACT OUR OPERATIONS.

Due to the political uncertainty involving Russia and Ukraine, there is also an increased likelihood that the tensions could result in cyberattacks or cybersecurity incidents that could either directly or indirectly impact our operations. Any attempts by cyber attackers to disrupt our services or information systems or the services or information systems of our vendors, if successful, could harm our business, result in the misappropriation of funds, be expensive to remedy, and damage our reputation or brand. Insurance may not be sufficient to cover significant expenses and losses related to such cyberattacks and cybersecurity incidents.

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

There were no unregistered sales of equity securities during the period covered by this report.

(c) Issuer Purchases of Equity Securities

The table below summarizes our stock repurchase activity for the quarter ended March 31, 2022.

Fiscal Period	Total Number of Shares Repurchased	Average Price Paid Per Share	Total Number of Shares Purchased As Part of a Publicly Announced Program	Approximate Dollar Amount of Shares That May Yet be Purchased Under the Program [1]
January 1 to January 31, 2022	211	$ 274.52	211	$ 1.6 billion
February 1 to February 28, 2022	12,612	$ 270.56	12,612	$ 1.6 billion
March 1 to March 31, 2022	384,690	$ 267.87	384,690	$ 1.5 billion
Total during quarter ended March 31, 2022	397,513	$ 267.96	397,513	

(1) Since March 2009, we have had an active stock repurchase program. As of March 31, 2022, our Board of Directors (the "Board") had authorized an aggregate amount of up to $7.5 billion for stock repurchases, of which the most recent authorization occurred in January 2019, when the Board increased the authorized amount available under our share repurchase program to $2.0 billion. The remaining $1.5 billion represents the amount available to repurchase shares under the authorized repurchase program as of March 31, 2022. The authorized stock repurchase program does not have an expiration date.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit Number	Exhibit Description
3.1(a)	Amended and Restated Certificate of Incorporation of Intuitive Surgical, Inc., as amended (incorporated by reference to Exhibit 3.1 of the Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on July 23, 2020).
3.1(b)	Amended and Restated Certificate of Incorporation of Intuitive Surgical, Inc., as amended (incorporated by reference to Exhibit 3.1 of the Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on October 20, 2021).
3.2	Amended and Restated Bylaws of Intuitive Surgical, Inc. (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K filed with the Securities and Exchange Commission on February 1, 2021).
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following materials from Intuitive Surgical, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, formatted in Inline XBRL (Extensible Business Reporting Language): (i) the unaudited Condensed Consolidated Balance Sheets, (ii) the unaudited Condensed Consolidated Statements of Comprehensive Income, (iii) the unaudited Condensed Consolidated Statements of Cash Flows, and (iv) Notes to Condensed Consolidated Financial Statements (unaudited), tagged at Level I through IV.
104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, formatted in Inline XBRL and contained in Exhibit 101.

SIGNATURE

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

INTUITIVE SURGICAL, INC.

By: /s/ JAMIE E. SAMATH
Jamie E. Samath
Senior Vice President and Chief Financial Officer
(Principal Financial Officer and duly authorized signatory)

Date: April 22, 2022

EXHIBIT 31.1

Certification of Chief Executive Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Gary S. Guthart, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Intuitive Surgical, Inc.;

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

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ GARY S. GUTHART

Gary S. Guthart, Ph.D.
President and Chief Executive Officer

Date: April 22, 2022

EXHIBIT 31.2

Certification of Chief Financial Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Jamie E. Samath, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Intuitive Surgical, Inc.;

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

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ JAMIE E. SAMATH

Jamie E. Samath
Senior Vice President and Chief Financial Officer

Date: April 22, 2022

EXHIBIT 32.1

Certification of Chief Executive Officer
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Intuitive Surgical, Inc. (the "Company") hereby certifies, to such officer's knowledge, that:

(i) the accompanying Quarterly Report on Form 10-Q of the Company for the quarterly period ended March 31, 2022 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 22, 2022

By: /S/ GARY S. GUTHART

Gary S. Guthart, Ph.D.
President and Chief Executive Officer

EXHIBIT 32.2

Certification of Chief Financial Officer
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Intuitive Surgical, Inc. (the "Company") hereby certifies, to such officer's knowledge, that:

(i) the accompanying Quarterly Report on Form 10-Q of the Company for the quarterly period ended March 31, 2022 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 22, 2022

By: /s/ JAMIE E. SAMATH

Jamie E. Samath
Senior Vice President and Chief Financial Officer