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

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

CORINDUS VASCULAR ROBOTICS, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State of Incorporation)

EIN 30-0687898
(IRS Employer
Identification No.)

309 Waverley Oaks Road, Suite 105
Waltham, Massachusetts 02452
United States
(508) 653-3335

(Address, including zip code, and telephone number, including area code, of registrant’s principal executive offices)

Mark J. Toland
President and Chief Executive Officer
Corindus Vascular Robotics, Inc.
309 Waverley Oaks Road, Suite 105
Waltham, Massachusetts 02452
(508) 653-3335

(Name, address, including zip code, and telephone number, including area code, of agent for service)

With copies to:
William C. Hicks, Esq.
Marc D. Mantell, Esq.
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
One Financial Center
Boston, Massachusetts 02111
(617) 542-6000

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. ☐

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(c) under the Securities Act, check the following box. ☐

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. ☐

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

Large accelerated filer ☐
Accelerated filer ☒

Non-accelerated filer ☐ (Do not check if a smaller reporting company)
Smaller reporting 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.

**CALCULATION OF REGISTRATION FEE**

<table>
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<tr>
<th>Title of each Class of Securities to be Registered</th>
<th>Amount to be Registered (1)</th>
<th>Proposed Maximum Offering Price Per Share (2)</th>
<th>Proposed Maximum Aggregate Offering Price</th>
<th>Amount of Registration Fee</th>
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<tr>
<td>Common Stock, $0.0001 par value per share, underlying preferred stock</td>
<td>32,000,000(3)</td>
<td>$1.29(4)</td>
<td>$41,280,000.00</td>
<td>$5,139.36</td>
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<tr>
<td>Common Stock, $0.0001 par value per share, underlying warrants</td>
<td>8,750,000(5)</td>
<td>$1.40(6)</td>
<td>$12,250,000.00</td>
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(1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the “Securities Act”), this registration statement also covers any additional number of shares of common stock issuable upon stock splits, stock dividends or other similar distributions, recapitalizations or similar events with respect to shares of the common stock being registered pursuant to this registration statement.

(2) In accordance with Rule 457(c) under the Securities Act, the aggregate offering price of the common stock is estimated solely for the calculation of the registration fees due for this filing.

(3) Represents (a) 20,000,000 shares of the common stock issuable upon the conversion of series A preferred stock sold in a private placement that closed on March 16, 2018 (the “2018 Private Placement”) (assuming a conversion price of $1.25 per share), and (b) 12,000,000 shares of common stock that may be issued upon the conversion of the maximum number of shares of series A-1 preferred stock issuable over the next five years as dividends on its series A preferred stock (assuming a conversion price of $1.25 per share).

(4) This estimate was based on the average of the high and low sales price of our common stock reported by the NYSE American on April 11, 2018.

(5) Represents 8,750,000 shares of common stock issuable upon the exercise of warrants issued as part of the 2018 Private Placement.

(6) In accordance with Rule 457(g), this estimate was based on the exercise price of a warrant in accordance with Rule 457(g) under the Securities Act.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.
The information in this prospectus is not complete and may be changed. The selling stockholders may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED APRIL 12, 2018

PROSPECTUS

CORINDUS VASCULAR ROBOTICS, INC.

40,750,000 Shares of Common Stock

This prospectus relates to the offering and resale by the selling stockholders identified herein, including their pledgees, donees, transferees, assigns or other successors-in-interest, of up to 40,750,000 shares of common stock of Corindus Vascular Robotics, Inc., par value $0.0001 per share. Of the shares being registered, 20,000,000 shares of common stock are issuable upon conversion of shares of series A preferred stock, 12,000,000 shares of common stock are issuable upon the conversion of the maximum number of shares of series A-1 preferred stock issuable as dividends on series A preferred stock over the next five years (assuming a conversion price of $1.25 per share) and 8,750,000 shares of common stock are issuable upon the exercise of warrants to purchase shares of common stock. The series A preferred stock were sold and the warrants to purchase common stock were issued to accredited investors in a private placement offering which closed on March 16, 2018.

The selling stockholders may sell, transfer or otherwise dispose of any or all of their shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions, or using a combination of these methods, and at fixed prices, at prevailing market prices at the time of the sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. See the disclosure under the heading “Plan of Distribution” beginning on page 14 this prospectus for more information about how the selling stockholders may sell or otherwise dispose of their shares of common stock hereunder.

We are registering these shares on behalf of the selling stockholders, to be offered and sold by them from time to time. We will not receive any proceeds from the sale of our common stock by the selling stockholders in the offering described in this prospectus. The selling stockholders may sell any, all or none of the securities offered by this prospectus and we do not know when or in what amount the selling stockholders may sell their shares of common stock hereunder following the effective date of this registration statement.

Our common stock is listed on the NYSE American under the symbol “CVRS”. On April 11, 2018, the last reported sale price for our common stock was $1.27 per share.

Investing in our common stock involves a high degree of risk. Before making any investment in our common stock, you should read and carefully consider the risks described in this prospectus under “Risk Factors” beginning on page 7 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2018
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ABOUT THIS PROSPECTUS

You should rely only on the information that we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus that we may authorize to be provided to you. We have not authorized anyone to provide you with different information. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security registered under the registration statement of which this prospectus is a part.

This prospectus does not contain all of the information included in the registration statement. For a more complete understanding of the offering of the common stock, you should refer to the registration statement including the exhibits. This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading “Where You Can Find Additional Information.” We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in the accompanying prospectus were made solely for the benefit of the parties to such agreement, including in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

As used in this prospectus, unless the context indicates or otherwise requires, “Corindus,” “the Company,” “we,” “us,” “our” and similar terms refer to Corindus Vascular Robotics, Inc. and our subsidiaries.

We have registered trademarks for Corindus®, CorPath® and technIQ™. All other trademarks, trade names and service marks included in this prospectus are the property of their respective owners. Use or display by us or other parties’ trademarks, trade dress or products is not intended to and does not imply a relationship with, or endorsements or sponsorship of, us by the trademark or trade dress owner.
PROSPECTUS SUMMARY

The following is a summary of what we believe to be the most important aspects of our business and the offering of our common stock under this prospectus. This summary does not contain all of the information that should be considered before investing in our common stock. Investors should read the entire prospectus carefully, including the risks related to our business and purchasing our common stock discussed under “Risk Factors” beginning on page 7 of this prospectus, “Special Notes Regarding Forward Looking Statements” and our financial statements and the notes to those financial statements incorporated by reference in this prospectus.

Overview

We design, manufacture and sell precision vascular robotic-assisted systems for use in interventional vascular procedures (the “CorPath® System”). The CorPath System is the first medical device cleared by the U.S. Food and Drug Administration (“FDA”) to bring robotic-assisted precision to radial, coronary and peripheral procedures. During these procedures, the interventional cardiologist sits at a radiation-shielded workstation to advance interventional devices with millimeter-by-millimeter precision. The workstation allows the physician greater control and the freedom from wearing heavy lead protective equipment that can cause musculoskeletal injuries. The CorPath System brings robotic precision to radial and complex interventional procedures to help optimize clinical outcomes and minimize the costs associated with complications of improper stent placement with manual procedures. In October 2016, we announced that we had received 510(k) clearance from the FDA for CorPath GRX System, the second generation of the CorPath System. CorPath GRX significantly builds upon the CorPath 200 platform, adding a significant number of key upgrades that increase precision, improve workflow, and extend the capabilities and range of the procedures that can be performed robotically. These features include active guide management which enables control of the guide catheter along with robotic control of the guidewire and balloon or stent catheter, with one-millimeter advancement, from the control console. This precise positioning will enable physicians to adjust guide catheter position during procedures, and may expand use of CorPath to more complex cases. We began commercial shipment of the CorPath GRX System in late January 2017. While the CorPath GRX has been cleared for and we are targeting percutaneous coronary intervention procedures and peripheral vascular interventions, we believe our technology platform has the capability to be developed in the future for other segments of the vascular market, including neurointerventional and other more complex cardiac interventions such as structural heart. As of December 31, 2017, we have installed 33 CorPath GRX Systems. Additionally, as of December 31, 2017, we shipped six GRX Systems that were accepted by a distributor. During 2017, the majority of our consumable revenues relate to the sale of CorPath GRX System cassettes and accessories.

Our Corporate History

Our Company was incorporated under the laws of the State of Nevada on May 4, 2011 under the name “Your Internet Defender Inc.” On August 12, 2014, we closed a reverse acquisition transaction in which we acquired Corindus, Inc. and Corindus Security Corporation as wholly owned subsidiaries (the “Acquisition”). Immediately following the closing of the Acquisition, the business of Corindus, Inc. became our sole focus. We subsequently changed our name to Corindus Vascular Robotics, Inc. Effective June 28, 2016, following our 2016 Annual Meeting of Stockholders held on June 23, 2016, our Company changed its state of incorporation from the State of Nevada to the State of Delaware. Our common stock was approved for listing on the NYSE American, where it commenced trading on May 29, 2015 under the symbol “CVRS.” Our Company’s common stock was previously traded on the OTCQB as provided by OTC Markets Group, Inc. under the symbol “CVRS.”

Risks Associated with Our Business

Our business and ability to execute our business strategy are subject to a number of risks of which you should be aware before you decide to buy our common stock, which are discussed more fully in the section entitled “Risk Factors” beginning on page 7 in this prospectus.

Corporate Information

Our corporate headquarters are located at 309 Waverley Oaks Road, Suite 105, Waltham, Massachusetts 02452 and our telephone number is (508) 653-3335. We maintain a website at www.corindus.com, to which we regularly post copies of our press releases as well as additional information about us. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.
Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, are available free of charge through the investor relations page of our internet website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC.

Additional Information

For additional information related to our business and operations, please refer to the reports incorporated herein by reference, including our Annual Report on Form 10-K for the year ended December 31, 2017 as described under the caption “Information Incorporated by Reference” on page 17 of this prospectus. For a description of certain risks related to our business, see the disclosure under the heading “Risk Factors” beginning on page 7 of this prospectus.
THE OFFERING

This prospectus relates to the resale from time to time by the selling stockholders identified herein of up to 40,750,000 shares of our common stock. We are not offering any shares for sale under the registration statement of which this prospectus is a part.

Common stock offered by the selling stockholders hereunder: We are registering 40,750,000 shares of common stock to be offered by the selling stockholders, which includes (i) 20,000,000 shares issuable upon the conversion of shares of series A preferred stock that were issued in a private placement offering which closed on March 16, 2018, or the 2018 Private Placement, (ii) 8,750,000 shares of common stock underlying warrants issued in connection with the 2018 Private Placement and (iii) 12,000,000 shares of common stock that are issuable upon the conversion of the maximum number of shares of series A-1 preferred stock issuable as dividends on series A preferred stock over the next five years.

Conversion of Series A Preferred Stock: Each share of our series A preferred stock is convertible, at the holder’s option at any time, but subject to the approval of our stockholders as described below, initially into 20 shares of our common stock (which is equivalent to an initial conversion price of $1.25 per share), subject to specified adjustments as set forth in the Certificate of Designations, Preferences, Rights and Limitations of the Series A Preferred Stock and Series A-1 Preferred Stock (the “Certificate of Designation”). Prior to approval by our stockholders in accordance with the rules and regulations of NYSE American, the shares of series A preferred stock may not be converted into common stock in an amount which, when added to any shares of common stock issued upon the exercise of the warrants issued in the 2018 Private Placement, exceeds 37,565,800 in the aggregate. In addition, we have the right, at our option, to cause all outstanding shares of series A preferred stock to be converted into common stock upon the occurrence of certain events.

Terms of Warrant: Each warrant entitles the holder to purchase one share of our common stock at an exercise price of $1.40, subject to adjustment. The warrants are not exercisable for the first six months following issuance and have a 10 year term.

Dividends on Series A Preferred Stock: Holders of our series A preferred stock are entitled to receive, whether or not declared by the board of directors, non-compounding dividends in shares of series A-1 preferred stock at a rate of 12% per annum (the dividend rate) on the liquidation preference per share of the series A preferred stock, subject to reduction in the event certain milestones are achieved. The registration statement of which this prospectus is a part covers the common stock issuable assuming the maximum dividend rate for a period of five years. The series A-1 preferred stock has the same initial conversion price of $1.25 per share as the series A preferred stock.

Use of Proceeds: We will not receive any proceeds from the sale of our common stock offered by the selling stockholders under this prospectus. A portion of the shares covered under this prospectus are issuable upon the exercise of warrants, which are exercisable under certain circumstances on a cashless basis. Assuming the holders of our warrants exercise all of such warrants at the exercise price of $1.40 per share, we would expect to receive $12,250,000 in net proceeds from the exercise of our warrants. We intend to use these net proceeds for working capital and general corporate purposes.
| **Offering Price:** | The selling stockholders may sell all or a portion of their shares through public or private transactions at prevailing market prices or at privately negotiated prices. |
| **Risk Factors:** | Investing in our securities involves a high degree of risk and purchasers may lose their entire investment. See the disclosure under the heading “Risk Factors” beginning on page 7 of this prospectus. |
| **NYSE American Trading Symbol:** | CVRS |
RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties and all other information, documents or reports included or incorporated by reference in this prospectus and, if applicable, any prospectus supplement or other offering materials, including the risks and uncertainties discussed under “Risk Factors” in our most recent Annual Report on Form 10-K, filed with the SEC, which are incorporated by reference, in this prospectus, and any updates to those risk factors included from time to time in our periodic and current reports filed with the SEC and incorporated by reference in this prospectus, before making any decision to invest in shares of our common stock. If any of the events discussed in these risk factors occurs, our business, prospects, results of operations, financial condition and cash flows could be materially harmed. If that were to happen, the trading price of our common stock could decline, and you could lose all or part of your investment. Additional risks not currently known to us or other factors not perceived by us to present significant risks to our business at this time also may impair our business operations.
The table below sets forth our ratio of earnings to combined fixed charges and preference dividends for the periods indicated.

We did not have any shares of preferred stock outstanding prior to the issuance of the series A preferred stock in connection with the 2018 Private Placement, and therefore have not previously declared and were not otherwise required to pay any dividends on preferred stock. Accordingly, our ratio of earnings to combined fixed charges and preference dividends for each of the five years in the period ended December 31, 2017 is equivalent to our ratio of earnings to fixed charges.

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<tr>
<td><strong>Ratio of earnings to combined fixed charges and preference dividends</strong></td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
<td>(2)</td>
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<td><strong>Deficiency of Earnings Available to Cover Fixed Charges</strong></td>
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<td>$33,078</td>
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<td>$24,541</td>
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(1) Our earnings for the years ended December 31, 2017, 2016, 2015, and 2014 were insufficient to cover fixed charges and preference dividends. Because of these deficiencies, the ratio information is not applicable for those periods. The extent to which earnings were insufficient to cover fixed charges for those periods is shown above. Earnings consist of loss from continuing operations before adjustment for income or loss from equity investees, fixed charges, amortization of capitalized interest, distributed income of equity investees and the company’s share of pre-tax losses of equity investees for which charges arising from guarantees are included in fixed charges, less capitalized interest and non-controlling interest in pre-tax income of subsidiaries that have no incurred fixed charges. Fixed charges consist of interest expensed and capitalized, amortized premiums, discounts and capitalized expenses related to indebtedness, and an estimate of the interest within rental expense.

(2) For the year ended December 31, 2013, there were no fixed charges.
This prospectus and the documents incorporated by reference in this prospectus include forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding:

- our ability to successfully commercialization our CorPath System;
- the ability of institutions or physicians to obtain coverage and reimbursement from third-party payors for procedures using our products;
- our ability to expand our technology beyond PCI procedures and sell our products to other vascular markets in the future;
- the risk to us of product liability and negligence claims relating to the use of our product or product recalls of our product;
- our need for substantial additional funds in order to continue our operations and the uncertainty of whether we will be able to obtain the funding we need;
- our future financial performance;
- our ability to expand our direct sales force or retain or hire key management personnel;
- our ability to protect our intellectual property rights that are valuable to our business, including patent and other intellectual property rights;
- our dependence on limited or single source suppliers and vendors for components and services used in the manufacture of our product;
- our ability to successfully market and sell our product in the future and in international markets;
- the size and growth of the potential markets for any of our approved drug candidates, and the rate and degree of market acceptance of any of our approved drug candidates;
- competition in our industry; and
- regulatory developments in the U.S. and foreign countries.

Such statements in connection with any discussion of future operations or financial performance are identified by the use of words such as “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “plan,” “project,” “target,” “potential,” “shall,” “will,” “would,” “could,” “should,” “continue,” and similar expressions. You also can identify them by the fact that they do not relate strictly to historical or current facts. There are a number of important risks and uncertainties that could cause our actual results to differ materially from the results discussed in the forward-looking statements.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important cautionary statements in this prospectus or in the documents incorporated by reference in this prospectus, particularly in the “Risk Factors” section, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. For a summary of such factors, please refer to the section entitled “Risk Factors” in this prospectus, as updated and supplemented by the discussion of risks and uncertainties under “Risk Factors” contained in our most recent annual report on Form 10-K, as revised or supplemented by our subsequent quarterly reports on Form 10-Q or our current reports on Form 8-K, as well as any amendments thereto, as filed with the SEC and which are incorporated herein by reference. The information contained in this document is believed to be current as of the date of this document. We do not undertake any obligation or intend to update any of the forward-looking statements after the date of this document to conform these statements to actual results or to changes in our expectations, except as required by law.
USE OF PROCEEDS

We will not receive any proceeds from the sale of the shares offered pursuant to this prospectus. The selling stockholders will receive all of the proceeds from the sale of the shares of common stock offered by this prospectus. For information about the selling stockholders, see “Selling Stockholders” beginning on page 11. The selling stockholders will pay any underwriting discounts and commissions and expenses incurred by the selling stockholders for brokerage or legal services or any other expenses incurred by the selling stockholders in disposing of the shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including all registration and filing fees and fees and expenses of our counsel and accountants.

A portion of the shares covered by this prospectus are issuable upon exercise of warrants to purchase shares of our common stock. Pursuant to conditions set forth in the warrants, the warrants are exercisable under certain circumstances on a cashless basis, and should a selling stockholder elect to exercise on a cashless basis we will not receive any proceeds from the sale of common stock issued upon the cashless exercise of the warrant. The holders of the warrants are not obligated to exercise their warrants, and we cannot predict whether holders of the warrants will choose to exercise all or any of their warrants or if they will do so for cash or on a cashless basis. However, if all of the Warrants were exercised for cash, we would receive gross proceeds of $12,250,000. We currently intend to use such proceeds, if any, for working capital and general corporate purposes.
SELLING STOCKHOLDERS

This prospectus covers the resale from time to time by the selling stockholders identified in the table below, including their pledgees, donees, transferees, assigns or other successors in interest, of up to an aggregate of 40,750,000 shares of our common stock.

Of the shares being registered, 20,000,000 shares of common stock are issuable upon conversion of shares of series A preferred stock that were sold to accredited investors in a private placement offering which closed on March 16, 2018, or the 2018 Private Placement, 12,000,000 shares of common stock are issuable upon the conversion of the maximum number of shares of series A-1 preferred stock issuable as dividends on the series A preferred stock over the next five years and 8,750,000 shares of common stock are issuable upon the exercise of warrants to purchase shares of common stock issued in connection with the 2018 Private Placement. Pursuant to the registration rights agreement we entered into with the selling stockholders in connection with the 2018 Private Placement, or the Registration Rights Agreement, we have filed with the SEC the registration statement of which this prospectus forms a part in order to register such resales of our common stock under the Securities Act. We have also agreed to cause this registration statement to become effective and to keep such registration statement effective within and for the time periods set forth in the Registration Rights Agreement. Our failure to satisfy the filing or effectiveness deadlines set forth in the Registration Rights Agreement may subject us to payment of certain monetary penalties pursuant to the terms of the Registration Rights Agreement.

The selling stockholders identified in the table below may from time to time offer and sell under this prospectus any or all of the shares of common stock described under the column “Shares of Common Stock Being Offered in this Offering” in the table below. The table below has been prepared based upon information furnished to us by the selling stockholders as of the dates represented in the footnotes accompanying the table. The selling stockholders identified below may have sold, transferred or otherwise disposed of some or all of their shares since the date on which the information in the following table is presented in transactions exempt from or not subject to the registration requirements of the Securities Act. Information concerning the selling stockholders may change from time to time and, if necessary, we will amend or supplement this prospectus accordingly and as required.

The following table and footnote disclosure following the table sets forth the name of each selling stockholder, the nature of any position, office or other material relationship, if any, that the selling stockholder has had within the past three years with us or with any of our predecessors or affiliates, and the number of shares of our common stock beneficially owned by the selling stockholder before this offering. The number of shares reflected are those beneficially owned, as determined under applicable rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under applicable SEC rules, beneficial ownership includes any shares of common stock as to which a person has sole or shared voting power or investment power and any shares of common stock which the person has the right to acquire within 60 days after March 16, 2018 through the exercise of any option, warrant or right or through the conversion of any convertible security. Since (i) the warrants issued in connection with the 2018 Private Placement are not exercisable until September 16, 2018 and (ii) certain shares of series A-1 preferred stock issuable as dividends on the series A preferred stock will not be issued within 60 days after March 16, 2018, we have excluded the common stock issuable upon the exercise of such warrants and issuable upon the conversion of such series A-1 preferred stock, respectively, although such shares are covered by the registration statement of which this prospectus is a part.

Unless otherwise indicated in the footnotes to the table below and subject to community property laws where applicable, we believe, based on information furnished to us that each of the selling stockholders named in this table has sole voting and investment power with respect to the shares indicated as beneficially owned.

We have assumed that all shares of common stock reflected in the table as being offered in the offering covered by this prospectus will be sold from time to time in this offering. We cannot provide an estimate as to the number of shares of common stock that will be held by the selling stockholders upon termination of the offering covered by this prospectus because the selling stockholders may offer some, all or none of their shares of common stock being offered in the offering.
<table>
<thead>
<tr>
<th>Selling Stockholder (1)</th>
<th>Shares of Common Stock Beneficially Owned Before this Offering</th>
<th>Number of Shares of Common Stock Being Offered (3)</th>
<th>Shares of Common Stock Beneficially To Be Owned Upon Completion of this Offering (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentage (2)</td>
<td>Number</td>
</tr>
<tr>
<td>Hudson Executive Capital LP (5)</td>
<td>22,248,474</td>
<td>11.14%</td>
<td>22,005,000</td>
</tr>
<tr>
<td>BioStar Ventures III, L.P. (6)</td>
<td>8,365,756</td>
<td>4.41%</td>
<td>1,630,000</td>
</tr>
<tr>
<td>Heritage Medical Systems (7)</td>
<td>8,083,200</td>
<td>4.11%</td>
<td>16,300,000</td>
</tr>
<tr>
<td>Richard M. Kovacevich (8)</td>
<td>404,160</td>
<td>*</td>
<td>815,000</td>
</tr>
</tbody>
</table>

* Less than 1%.

(1) All information contained as of March 9, 2018.

(2) Based on a denominator equal to the sum of (a) 188,772,869 shares of our common stock outstanding on March 9, 2018, and (b) the number of shares of common stock issuable upon exercise or conversion of convertible securities that are currently exercisable or convertible or are exercisable or convertible within 60 days of March 9, 2018 beneficially owned by the applicable selling stockholder.

(3) As described in footnotes 5-8, not all of the shares of common stock included in this column are deemed beneficially owned as of March 9, 2018.

(4) Assumes that all shares of common stock being registered under the registration statement of which this prospectus forms a part are sold in this offering, and that none of the selling stockholders acquire additional shares of our common stock after the date of this prospectus and prior to completion of this offering.

(5) Consists of (a) 10,800,000 shares of common stock issuable upon the conversion of shares of series A preferred stock issued to selling stockholder in the 2018 Private Placement, (b) 11,336,154 shares of common stock held prior to the 2018 Private Placement and (c) 112,320 shares of common stock issuable upon the conversion of shares of series A-1 preferred stock issued to the selling stockholder as a dividend on the shares of Series A preferred stock held by the stockholder. Does not include (i) 6,367,680 shares of common stock issuable over the next five years with respect to the series A preferred stock if we pay the maximum amount of dividends on our series A preferred stock in series A-1 preferred stock which are then converted into shares of common stock or (ii) 4,725,000 shares of common stock issuable upon the exercise of warrants issued in connection with the 2018 Private Placement, although in each case of (a) and (b) such shares are covered by the registration statement of which this prospectus is a part.

(6) Consists of (a) 800,000 shares of common stock issuable upon the conversion of shares of series A preferred stock issued to selling stockholder in the 2018 Private Placement, (b) 7,557,436 shares of common stock held prior to the 2018 Private Placement and (c) 8,320 shares of common stock issuable upon the conversion of shares of series A-1 preferred stock issued to the selling stockholder as a dividend on the shares of Series A preferred stock held by the stockholder. Does not include (i) 471,680 shares of common stock issuable over the next five years with respect to the series A preferred stock if we pay the maximum amount of dividends on our series A preferred stock in series A-1 preferred stock which are then converted into shares of common stock or (ii) 350,000 shares of common stock issuable upon the exercise of warrants issued in connection with the 2018 Private Placement, although in each case of (a) and (b) such shares are covered by the registration statement of which this prospectus is a part.

Douglas L. Braunstein is the Managing Partner of Hudson Executive Capital LP and as such has the power to vote or dispose of the securities held by the selling stockholder and may be deemed to beneficially own the securities. Mr. Braunstein disclaims beneficial ownership of these securities, except to the extent of his pecuniary interests therein. Mr. Braunstein is a director of the Company. The address for Hudson Executive Capital LP is 570 Lexington Avenue, 35th Floor, New York, NY 10022.

Louis A. Cannon is the founder and Senior Managing Director of BioStar Private Equity Fund I and BioStar Ventures Fund II and III and as such has the power to vote or dispose of the securities held by the selling stockholder and may be deemed to beneficially own the securities. Dr. Cannon disclaims beneficial ownership of these securities, except to the extent of his pecuniary interests therein. Dr. Cannon is a director of the Company. The address for BioStar Ventures III, L.P. is 560 W. Mitchell Street #500, Petoskey, MI 49770.
Consists of 8,000,000 shares of common stock issuable upon the conversion of shares of series A preferred stock issued to selling stockholder in the 2018 Private Placement and (b) 83,200 shares of common stock issuable upon the conversion of shares of series A-1 preferred stock issued to the selling stockholder as a dividend on the shares of Series A preferred stock held by the stockholder. Does not include (a) 4,716,800 shares of common stock issuable over the next five years with respect to the series A preferred stock if we pay the maximum amount of dividends on our series A preferred stock in series A-1 preferred stock which are then converted into shares of common stock or (b) 3,500,000 shares of common stock issuable upon the exercise of warrants issued in connection with the 2018 Private Placement, although in each case of (a) and (b) such shares are covered by the registration statement of which this prospectus is a part. The address for Heritage Medical Systems is 318 N. Carson St., #208, Carson City, NV 89701.

Consists of 400,000 shares of common stock issuable upon the conversion of shares of series A preferred stock issued to selling stockholder in the 2018 Private Placement and (b) 4,160 shares of common stock issuable upon the conversion of shares of series A-1 preferred stock issued to the selling stockholder as a dividend on the shares of Series A preferred stock held by the stockholder. Does not include (i) 235,840 shares of common stock issuable over the next five years with respect to the series A preferred stock if we pay the maximum amount of dividends on our series A preferred stock in series A-1 preferred stock which are then converted into shares of common stock or (ii) 175,000 shares of common stock issuable upon the exercise of warrants issued in connection with the 2018 Private Placement, although in each case of (a) and (b) such shares are covered by the registration statement of which this prospectus is a part.
The selling stockholders and any of their pledgees, donees, transferees, assignees or other successors-in-interest may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. The selling stockholders may use one or more of the following methods when disposing of the shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- through brokers, dealers or underwriters that may act solely as agents;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- through the writing or settlement of options or other hedging transactions entered into after the effective date of the registration statement of which this prospectus is a part, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholder to sell a specified number of such shares at a stipulated price per share;
- one or more underwritten offerings on a firm commitment or best efforts basis;
- a combination of any such methods of disposition; and
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares under Rule 144 under the Securities Act of 1933, as amended, or Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other broker-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. The selling stockholders do not expect these commissions and discounts to exceed what is customary in the types of transactions involved.

The selling stockholders may from time to time pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell shares of common stock from time to time under this prospectus, or under a supplement or amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus.

Upon being notified in writing by a selling stockholder that any material arrangement has been entered into with a broker-dealer for the sale of common stock through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer, we will file a supplement to this prospectus, if required, pursuant to Rule 424(b) under the Securities Act, disclosing (i) the name of such selling stockholder and of the participating broker-dealer(s), (ii) the number of shares involved, (iii) the price at which such shares of common stock were sold, (iv) the commissions paid or discounts or concessions allowed to such broker-dealer(s), where applicable, (v) that such broker-dealer(s) did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus, and (vi) other facts material to the transaction. In addition, upon being notified in writing by the selling stockholder that a donee or pledge intends to sell more than 500 shares of common stock, we will file a supplement to this prospectus if then required in accordance with applicable securities law.
The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of the shares of common stock or interests in shares of common stock, the selling stockholders may enter into hedging transactions after the effective date of the registration statement of which this prospectus is a part with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of common stock short after the effective date of the registration statement of which this prospectus is a part and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions after the effective date of the registration statement of which this prospectus is a part with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act.

We have advised the selling stockholders that they are required to comply with Regulation M promulgated under the Securities Exchange Act during such time as it may be engaged in a distribution of the shares. The foregoing may affect the marketability of the common stock.

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. The selling stockholders reserve the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

We are required to pay all fees and expenses incident to the registration of the shares. We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act or otherwise.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (a) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement, and (b) the date on which the shares of common stock covered by this prospectus may be sold by non-affiliates without any volume or manner of sale restrictions or current public information pursuant to Rule 144 of the Securities Act.
LEGAL MATTERS

The validity of the common stock being offered by this prospectus is being passed upon by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

EXPERTS

The consolidated financial statements of Corindus Vascular Robotics, Inc. appearing in Corindus Vascular Robotics, Inc.’s Annual Report (Form 10-K) for the year ended December 31, 2017, and the effectiveness of Corindus Vascular Robotics, Inc.’s internal control over financial reporting as of December 31, 2017, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon included therein and incorporated herein by reference. Such financial statements are, and audited financial statements to be included in subsequently filed documents will be, incorporated herein by reference in reliance upon the reports of Ernst & Young LLP pertaining to such financial statements and the effectiveness of our internal control over financial reporting as of the respective dates (to the extent covered by consents filed with the Securities and Exchange Commission) given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, and file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy these reports, proxy statements and other information at the SEC’s public reference facilities at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference facilities. SEC filings are also available at the SEC’s web site at http://www.sec.gov.

This prospectus is only part of a registration statement on Form S-3 that we have filed with the SEC under the Securities Act and therefore omits certain information contained in the registration statement. We have also filed exhibits and schedules with the registration statement that are excluded from this prospectus, and you should refer to the applicable exhibit or schedule for a complete description of any statement referring to any contract or other document. You may inspect a copy of the registration statement, including the exhibits and schedules, without charge, at the public reference room or obtain a copy from the SEC upon payment of the fees prescribed by the SEC.

We also maintain a website at www.corindus.com, through which you can access our SEC filings. The information set forth on our website is not part of this prospectus.
INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus incorporates by reference the documents listed below (File No. 001-37406) and any future filings we make with the SEC under Sections 13(a), 14 or 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) between the date of the initial registration statement and the effectiveness of the registration statement and following the effectiveness of the registration statement until the offering of securities under the registration statement is terminated or completed:

(1) Our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 that we filed with the SEC on March 19, 2018;

(2) Our Current Reports on Form 8-K filed on February 21, 2018, March 8, 2018, March 14, 2018, March 16, 2018, and March 19, 2018; and

(3) The description of our common stock contained in our Registration Statement on Form 8-A filed on May 27, 2015, including any amendment or report filed for the purpose of updating such description.

Any statement contained in this prospectus or in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus modifies or supersedes the statement. Any statements so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may request a copy of this prospectus or any or all documents incorporated or deemed to be incorporated by reference into this prospectus, orally or in writing, which will be provided to you at no cost, by contacting:

Corindus Vascular Robotics, Inc.
David Long, Chief Financial Officer
309 Waverley Oaks Road, Suite 105
Waltham, MA 02452
PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

Set forth below is an estimate (except for registration fees, which are actual) of the approximate amount of the types of fees and expenses listed below that were paid or are payable by us in connection with the issuance and distribution of the shares of common stock to be registered by this registration statement. None of the expenses listed below are to be borne by any of the selling stockholders named in the prospectus that forms a part of this registration statement.

<table>
<thead>
<tr>
<th>Expense</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEC Registration Fee</td>
<td>$6,665</td>
</tr>
<tr>
<td>Accounting Fees and Expenses</td>
<td>12,000</td>
</tr>
<tr>
<td>Legal Fees and Expenses</td>
<td>45,000</td>
</tr>
<tr>
<td>Transfer Agent Fees and Expenses</td>
<td>1,000</td>
</tr>
<tr>
<td>Miscellaneous Fees and Expenses</td>
<td>5,335</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$70,000</strong></td>
</tr>
</tbody>
</table>

Item 15. Indemnification of Directors and Officers.

We are a Delaware corporation and generally governed by the General Corporation Law of the State of Delaware, or DGCL.

Section 145(a) of the DGCL provides that a Delaware corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigatory (other than an action by or in the right of the corporation) by reason of the fact that he or she is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or enterprise, against expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such action, suit or proceeding if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no cause to believe his or her conduct was unlawful.

Section 145(b) of the DGCL provides that a Delaware corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that such person acted in any of the capacities set forth above, against expenses actually and reasonably incurred by him or her in connection with the defense or settlement of such action or suit if he or she acted under similar standards, except that no indemnification may be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the court in which such action or suit was brought shall determine that despite the adjudication of liability, such person is fairly and reasonably entitled to be indemnified for such expenses which the court shall deem proper.

Section 145 of the DGCL further provides that (i) to the extent a director or officer of a corporation has been successful in the defense of any action, suit or proceeding referred to in subsections (a) and (b) or in the defense of any claim, issue, or matter therein, he or she shall be indemnified against expenses (including attorneys’ fees) actually and reasonably incurred by him or her in connection therewith; (ii) indemnification provided for by Section 145 shall not be deemed exclusive of any other rights to which the indemnified party may be entitled; and (iii) the corporation may purchase and maintain insurance on behalf of a director or officer of the corporation against any liability asserted against him or her or incurred by him or her in any such capacity or arising out of his or her status as such whether or not the corporation would have the power to indemnify him or her against such liabilities under Section 145.

Section 102(b)(7) of the DGCL provides that a corporation in its original certificate of incorporation or an amendment thereto validly approved by stockholders may eliminate or limit personal liability of members of its board of directors or governing body for breach of a director’s fiduciary duty. No such provision, however, may eliminate or limit the liability of a director for breaching his or her duty of loyalty, failing to act in good faith, engaging in intentional misconduct or knowingly violating a law, paying a dividend or approving a stock repurchase which was illegal, or obtaining an improper personal benefit. A provision of this type has no effect on the availability of equitable remedies, such as injunction or rescission, for breach of fiduciary duty.
The foregoing discussion of indemnification merely summarizes certain aspects of indemnification provisions of, and is limited by reference to, the above discussed sections of the DGCL.

Our certificate of incorporation and bylaws provide that the Company shall indemnify its officers, directors, employees and agents to the full extent permitted by and in the manner permissible under the laws of the State of Delaware. In addition, the bylaws permit the board of to authorize the Company to purchase and maintain insurance against any liability asserted against any director, officer, employee or agent arising out of his or her capacity as such.

We maintain a directors’ and officers’ insurance policy pursuant to which our directors and officers are insured against liability for actions taken in their capacities as directors and officers. We believe that these indemnification provisions and insurance are necessary to attract and retain qualified directors and officers.

We have entered into indemnification agreements with each of our directors and officers. These indemnification agreements may require us, among other things, to indemnify our directors and officers for some expenses, including attorneys’ fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of his or her service as one of our directors or officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request.


The exhibits to this registration statement are listed in the Exhibit Index immediately following the signature page hereto, which are incorporated into this Item 16 by reference.

Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i), (ii) and (iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however,* that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant’s annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan’s annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.
SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filling on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Waltham, Commonwealth of Massachusetts, on April 12, 2018.

CORINDUS VASCULAR ROBOTICS, INC.

By: /s/ Mark J. Toland
Mark J. Toland
Chief Executive Officer and President

POWER OF ATTORNEY

We, the undersigned officers and directors of Corindus Vascular Robotics, Inc., hereby severally constitute and appoint Mark J. Toland and David W. Long, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for her or him and in her or his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement (or any other registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as she or he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or her or his substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

<table>
<thead>
<tr>
<th>Signature</th>
<th>Title</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>/s/ Mark J. Toland</td>
<td>Chief Executive Officer, President and Director</td>
<td>April 10, 2018</td>
</tr>
<tr>
<td>Mark J. Toland</td>
<td>(Principal Executive Officer)</td>
<td></td>
</tr>
<tr>
<td>/s/ David W. Long</td>
<td>Chief Financial Officer, Senior Vice President,</td>
<td>April 10, 2018</td>
</tr>
<tr>
<td>David W. Long</td>
<td>Treasurer and Secretary (Principal Financial and</td>
<td></td>
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<tr>
<td></td>
<td>Accounting Officer)</td>
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</tr>
<tr>
<td>/s/ Jeffrey C. Lightcap</td>
<td>Chairman</td>
<td>April 10, 2018</td>
</tr>
<tr>
<td>Jeffrey C. Lightcap</td>
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<tr>
<td>/s/ Jeffrey G. Gold</td>
<td>Director</td>
<td>April 10, 2018</td>
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<tr>
<td>Jeffrey G. Gold</td>
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<td></td>
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<tr>
<td>/s/ Campbell D. Rogers</td>
<td>Director</td>
<td>April 10, 2018</td>
</tr>
<tr>
<td>Campbell D. Rogers</td>
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<td></td>
</tr>
<tr>
<td>/s/ Louis A. Cannon</td>
<td>Director</td>
<td>April 10, 2018</td>
</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>/s/ Nathan R. Harrington</td>
<td>Director</td>
<td>April 10, 2018</td>
</tr>
<tr>
<td>Nathan R. Harrington</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/s/ James R. Tobin</td>
<td>Director</td>
<td>April 10, 2018</td>
</tr>
<tr>
<td>James R. Tobin</td>
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<tr>
<td>Douglas L. Braunstein</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## EXHIBIT INDEX

<table>
<thead>
<tr>
<th>Exhibit Number</th>
<th>Exhibit Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.3 of Current Report on Form 8-K, filed on June 29, 2016).</td>
</tr>
<tr>
<td>3.3</td>
<td>Bylaws of the Registrant (incorporated by reference to Exhibit 3.4 of Current Report on Form 8-K, filed on June 29, 2016).</td>
</tr>
<tr>
<td>4.1</td>
<td>Registration Rights Agreement by and among the Registrant and the investors party thereto dated as of March 15, 2018 (incorporated by reference to Exhibit 10.2 of Current Report on Form 8-K filed on March 16, 2018).</td>
</tr>
<tr>
<td>4.2</td>
<td>Form of Warrant (incorporated by reference to Exhibit 10.3 of Current Report on Form 8-K filed on March 16, 2018).</td>
</tr>
<tr>
<td>4.3</td>
<td>Specimen Stock Certificate evidencing the shares of common stock (incorporated by reference to Exhibit 4.2 of Registration Statement on Form S-3 filed on April 17, 2017).</td>
</tr>
<tr>
<td>5.1*</td>
<td>Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.</td>
</tr>
<tr>
<td>23.1*</td>
<td>Consent of Ernst &amp; Young LLP, Independent Registered Public Accounting Firm.</td>
</tr>
<tr>
<td>23.2*</td>
<td>Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included in Exhibit 5.1)</td>
</tr>
<tr>
<td>24.1*</td>
<td>Power of Attorney (contained on signature page hereto).</td>
</tr>
</tbody>
</table>

* Filed herewith.
April 12, 2018

Ladies and Gentlemen:

We have acted as legal counsel to Corindus Vascular Robotics, Inc., a Delaware corporation (the “Company”), in connection with the filing by the Company of a Registration Statement on Form S-3 (as amended, the “Registration Statement”) with the Securities and Exchange Commission (the “Commission”) relating to the registration under the Securities Act of 1933, as amended (the “Securities Act”), the offering from time to time by selling stockholders, as described in the Registration Statement, of up to 40,750,000 shares of the Company’s common stock, par value $0.0001 per share (the “Private Placement Shares”). The Private Placement Shares consist of (i) 20,000,000 shares of common stock issuable upon the conversion of 1,000,000 shares of series A preferred stock of the Company, par value $0.0001 per share (the “Series A Shares,” and the shares of Common Stock that such Series A Shares are convertible into, the “Series A Conversion Shares”), (ii) 12,000,000 shares of common stock issuable upon the conversion of 600,000 shares of series A-1 preferred stock of the Company, par value $0.0001 per share, the maximum number of series A-1 preferred stock issuable as dividends on Series A preferred stock over the next five years (assuming a conversion price of $1.25 per share) (the “Series A-1 Shares,” and the shares of Common Stock that such Series A Shares are convertible into, the “Series A-1 Conversion Shares”) and (iii) 8,750,000 shares of common stock issuable upon the exercise of warrants to purchase shares of common stock (the “Warrants” and the underlying shares of Common Stock, the “Warrant Shares”). The Series A Shares were sold and the Warrants were issued to accredited investors in a private placement offering which was closed on March 16, 2018.

As the counsel to the Company in connection with the Registration Statement, we have examined the actions taken by the Company in connection with the authorization of the issuance of the Private Placement Shares, and such documents as we have deemed necessary to render this opinion. In our examination, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as original, the conformity to original documents of all documents submitted to us as certified or photostatic copies and the authenticity of the originals of such copies. As to questions of fact material to this opinion, we have relied upon certificates or comparable documents of public officials and of officers and representatives of the Company.

Members of our firm are admitted to the Bar of the Commonwealth of Massachusetts and the State of New York, and we do not express any opinion as to the laws of any other jurisdiction other than the General Corporation Law of the State of Delaware and the United States federal laws. Without limiting the generality of the foregoing, we express no opinion with respect to (i) the qualification of the Private Placement Shares under the securities or blue sky laws of any state or any foreign jurisdiction or (ii) the compliance with any federal or state law, rule or regulation relating to securities, or to the sale or issuance thereof.

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

Boston | London | Los Angeles | New York | San Diego | San Francisco | Stamford | Washington
Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters. This opinion is based upon currently existing statutes, rules, regulations and judicial decisions, and we disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein.

Based upon and subject to the foregoing, it is our opinion that (i) the issue and sale of the Series A Conversion Shares in the manner contemplated by the Registration Statement and the Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock and Series A-1 Convertible Preferred Stock filed with the Secretary of State of the State of Delaware on March 16, 2018 (the “Certificate of Designation”) have been duly authorized by all necessary corporate action of the Company and upon issuance and delivery therefor upon conversion of the Series A Shares in the manner contemplated by the Registration Statement and the Certificate of Designation, the Series A Conversion Shares will be validly issued, fully paid and nonassessable, (ii) the issue and sale of the Warrant Shares in the manner contemplated by the Registration Statement and the Warrants have been duly authorized by all necessary corporate action of the Company and upon issuance, delivery and payment therefor in the manner contemplated by the Registration Statement and the Warrants, the Warrant Shares will be validly issued, fully paid and nonassessable, and (iii) the issue and sale of the Series A-1 Conversion Shares in the manner contemplated by the Registration Statement and the Certificate of Designation have been duly authorized by all necessary corporate action of the Company and upon issuance and delivery therefor upon conversion of the Series A-1 Shares in the manner contemplated by the Registration Statement and the Certificate of Designation, the Series A-1 Conversion Shares will be validly issued, fully paid and nonassessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the General Corporation Law of the State of Delaware.

We understand that you wish to file this opinion with the Commission as an exhibit to the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K promulgated under the Securities Act and to reference the firm’s name under the caption “Legal Matters” in the prospectus which forms part of the Registration Statement, and we hereby consent thereto. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” in the Registration Statement (Form S-3) and related Prospectus of Corindus Vascular Robotics, Inc. for the registration of up to 40,750,000 shares of its common stock and to the incorporation by reference therein of our reports dated March 19, 2018, with respect to the consolidated financial statements of Corindus Vascular Robotics, Inc., and the effectiveness of internal control over financial reporting of Corindus Vascular Robotics, Inc., included in its Annual Report (Form 10-K) for the year ended December 31, 2017, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts
April 12, 2018