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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(e) 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. (Check one):

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 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE(1)

| Title of Each Class of Securities to be Registered | Amount to be Registered | Proposed Maximum Offering Price Per Unit | Proposed Maximum Aggregate Offering Price | Amount of Registration Fee |
|--|-------------------------|--|---|----------------------------|
| Common Stock, \$0.01 par value | | | | |
| Preferred Stock, \$0.01 par value | | | | |
| Debt Securities | | | | |
| Warrants | | | | |
| Purchase Contracts | | | | |
| Units(2) | | | | |

An indeterminate amount of securities to be offered at indeterminate prices is being registered pursuant to this (1) registration statement. The registrant is deferring payment of the registration fee pursuant to Rule 456(b) and is omitting this information in reliance on Rule 456(b) and Rule 457(r).

(2) Any securities registered hereunder may be sold separately or as units with other securities registered hereunder.

PROSPECTUS

Charles River Laboratories International, Inc.

Common Stock, Preferred Stock, Debt Securities,

Warrants, Purchase Contracts and Units

We may offer from time to time common stock, preferred stock, debt securities, warrants, purchase contracts or units. In addition, certain selling security holders to be identified in a prospectus supplement may offer and sell these securities from time to time, in amounts, at prices and on terms that will be determined at the time the securities are offered. We urge you to read this prospectus and the accompanying prospectus supplement, which will describe the specific terms of these securities, carefully before you make your investment decision.

Our common stock is listed on the New York Stock Exchange under the trading symbol "CRL."

Investing in these securities involves certain risks. See "Risk Factors" beginning on page 15 of our Annual Report on Form 10-K for the year ended December 30, 2017, which is incorporated by reference herein.

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.

This prospectus may not be used to sell securities unless accompanied by a prospectus supplement.

The date of this prospectus is May 8, 2018

We have not authorized anyone to provide you with any information other than that contained in or incorporated by reference in this prospectus or in any prospectus supplement or free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information contained in or incorporated by reference in this prospectus, any prospectus supplement or any such free writing prospectus is accurate as of any date other than their respective dates. The terms “Charles River,” “we,” “us,” and “our” refer to Charles River Laboratories International, Inc.

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About This Prospectus

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission (the “SEC”), utilizing a “shelf” registration process. Under this shelf process, we may sell any combination of the securities described in this prospectus in one or more offerings. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement and information incorporated by reference after the date of this prospectus may also add, update or change information contained in this prospectus. You should read both this prospectus, any prospectus supplement and any free writing prospectus together with additional information described under the heading “Where You Can Find More Information.”

We have filed or incorporated by reference exhibits to the registration statement of which this prospectus forms a part. You should read the exhibits carefully for provisions that may be important to you.

Charles River Laboratories International, Inc.

We are a full service, early-stage contract research organization. We have built upon our core competency of laboratory animal medicine and science (research model technologies) to develop a diverse portfolio of discovery and safety assessment services, both Good Laboratory Practice (GLP) and non-GLP, which is able to support our clients from target identification through non-clinical development. We also provide a suite of products and services to support our clients’ manufacturing activities. For over 70 years, we have been in the business of providing the research models required in research and development of new drugs, devices and therapies. Over this time, we have built upon our core competency of *in vivo* biology to develop a diverse and expanding portfolio of products and services, which now encompasses the broader early-stage drug research process. Our client base includes global pharmaceutical companies, biotechnology companies, government agencies and hospitals and academic institutions around the world. We currently operate approximately 80 facilities in 23 countries worldwide.

Our principal offices are located at 251 Ballardvale Street, Wilmington, MA 01887, and our telephone number is (781) 222-6000. We maintain a website at <http://www.criver.com>, where general information about us is available. We are not incorporating the contents of our website into this prospectus.

Use of Proceeds

Unless otherwise indicated in a prospectus supplement, the net proceeds from the sale of the securities will be used for general corporate purposes, including working capital, acquisitions, retirement of debt and other business

opportunities. In the case of a sale by a selling security holder, we will not receive any of the proceeds from such sale.

Ratio of Earnings to Fixed Charges

The following table sets forth our ratio of earnings to fixed charges for the periods indicated.

| | Fiscal Year Ended | | | | |
|------------------------------------|-------------------|------|------|-------|------|
| | 2017 | 2016 | 2015 | 2014 | 2013 |
| Ratio of earnings to fixed charges | 8.38 | 7.28 | 9.55 | 10.89 | 5.96 |

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Description of Securities

This prospectus contains a summary of the securities that Charles River or certain selling security holders to be identified in a prospectus supplement may sell. These summaries are not meant to be a complete description of each security. However, this prospectus and the accompanying prospectus supplement contain the material terms of the securities being offered.

Description of Capital Stock

The following description is based upon our second amended and restated certificate of incorporation, our fifth amended and restated by-laws and applicable provisions of law. We have summarized certain portions of the second amended and restated certificate of incorporation and third amended and restated by-laws below. The summary is not complete. The second amended and restated certificate of incorporation and fifth amended and restated by-laws are incorporated by reference into this prospectus in their entirety. You should read the second amended and restated certificate of incorporation and fifth amended and restated by-laws for the provisions that are important to you.

Charles River's authorized capital stock consists of 120,000,000 shares of common stock and 20,000,000 shares of preferred stock. As of December 30, 2017, 87,495,096 shares of common stock were issued and 47,401,558 were outstanding. As of April 27, 2018, 47,911,809 shares of common stock issued and outstanding were held by approximately 348 registered shareholders. No shares of preferred stock were issued or outstanding as of December 30, 2017.

Common Stock

The issued and outstanding shares of common stock are, and the shares of common stock that we may issue in the future will be, validly issued, fully paid and non-assessable. Holders of our common stock are entitled to share equally, share for share, if dividends are declared on our common stock, whether payable in cash, property or our securities. The shares of common stock are not convertible and the holders thereof have no preemptive or subscription rights to purchase any of our securities. Upon liquidation, dissolution or winding up of our company, the holders of common stock are entitled to share equally, share for share, in our assets which are legally available for distribution, after payment of all debts and other liabilities and subject to the prior rights of any holders of any series of preferred stock then outstanding. Each outstanding share of common stock is entitled to one vote on all matters submitted to a vote of stockholders. There is no cumulative voting. Except as otherwise required by law or the restated certificate, the holders of common stock vote together as a single class on all matters submitted to a vote of stockholders.

Our common stock is listed on the New York Stock Exchange under the symbol "CRL."

Preferred Stock

We may issue shares of preferred stock in series and may, at the time of issuance, determine the rights, preferences and limitations of each series. Satisfaction of any dividend preferences of outstanding shares of preferred stock would reduce the amount of funds available for the payment of dividends on shares of common stock. Holders of shares of preferred stock may be entitled to receive a preference payment in the event of any liquidation, dissolution or winding-up of our company before any payment is made to the holders of shares of common stock. In some circumstances, the issuance of shares of preferred stock may render more difficult or tend to discourage a merger, tender offer or proxy contest, the assumption of control by a holder of a large block of our securities or the removal of incumbent management. Upon the affirmative vote of a majority of the total number of directors then in office, our board of directors, without stockholder approval, may issue shares of preferred stock with voting and conversion rights which could adversely affect the holders of shares of common stock.

We have no current intention to issue any of our unissued, authorized shares of preferred stock. However, the issuance of any shares of preferred stock in the future could adversely affect the rights of the holders of common stock.

Description of Debt Securities

The debt securities will be our direct unsecured general obligations. The debt securities will be either senior debt securities or subordinated debt securities. The debt securities will be issued under one or more separate indentures between us and U.S. Bank National Association, as trustee. Senior debt securities will be issued under a senior indenture. Subordinated debt securities will be issued under a subordinated indenture. Each of the senior indenture and the subordinated indenture is referred to as an indenture. The material terms of any indenture will be set forth in the applicable prospectus supplement.

Description of Warrants

We may issue warrants to purchase our debt or equity securities or securities of third parties or other rights, including rights to receive payment in cash or securities based on the value, rate or price of one or more specified commodities, currencies, securities or indices, or any combination of the foregoing. Warrants may be issued independently or together with any other securities and may be attached to, or separate from, such securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a warrant agent. The terms of any warrants to be issued and a description of the material provisions of the applicable warrant agreement will be set forth in the applicable prospectus supplement.

Description of Purchase Contracts

We may issue purchase contracts for the purchase or sale of:

debt or equity securities issued by us or securities of third parties, a basket of such securities, an index or indices of such securities or any combination of the above as specified in the applicable prospectus supplement;

· currencies; or

· commodities.

Each purchase contract will entitle or obligate the holder thereof to purchase or sell, and obligate us to sell or purchase, on specified dates, such securities, currencies or commodities at a specified purchase price, which may be based on a formula, all as set forth in the applicable prospectus supplement. We may, however, satisfy our obligations, if any, with respect to any purchase contract by delivering the cash value of such purchase contract or the cash value

of the property otherwise deliverable or, in the case of purchase contracts on underlying currencies, by delivering the underlying currencies, as set forth in the applicable prospectus supplement. The applicable prospectus supplement will also specify the methods by which the holders may purchase or sell such securities, currencies or commodities and any acceleration, cancellation or termination provisions or other provisions relating to the settlement of a purchase contract.

The purchase contracts may require us to make periodic payments to the holders thereof or vice versa, which payments may be deferred to the extent set forth in the applicable prospectus supplement, and those payments may be unsecured or prefunded on some basis. The purchase contracts may require the holders thereof to secure their obligations in a specified manner to be described in the applicable prospectus supplement. Alternatively, purchase contracts may require holders to satisfy their obligations thereunder when the purchase contracts are issued. Our obligation to settle such pre-paid purchase contracts on the relevant settlement date may constitute indebtedness. Accordingly, pre-paid purchase contracts will be issued under either the senior indenture or the subordinated indenture.

Description of Units

As specified in the applicable prospectus supplement, we may issue units consisting of one or more purchase contracts, warrants, debt securities, shares of preferred stock, shares of common stock or any combination of such securities. The applicable supplement will describe:

the terms of the units and of the purchase contracts, warrants, debt securities, preferred stock and common stock comprising the units, including whether and under what circumstances the securities comprising the units may be traded separately;

- if applicable, a discussion of any material United States federal income tax considerations;
- a description of the terms of any unit agreement governing the units; and
- a description of the provisions for the payment, settlement, transfer or exchange of the units.

Forms of Securities

Each debt security, warrant and unit will be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. Certificated securities in definitive form and global securities will be issued in registered form. Definitive securities name you or your nominee as the owner of the security, and in order to transfer or exchange these securities or to receive payments other than interest or other interim payments, you or your nominee must physically deliver the securities to the trustee, registrar, paying agent or other agent, as applicable. Global securities name a depositary or its nominee as the owner of the debt securities, warrants or units represented by these global securities. The depositary maintains a computerized system that will reflect each investor's beneficial ownership of the securities through an account maintained by the investor with its broker/dealer, bank, trust company or other representative, as we explain more fully below.

Registered Global Securities

We may issue the registered debt securities, warrants and units in the form of one or more fully registered global securities that will be deposited with a depositary or its nominee identified in the applicable prospectus supplement and registered in the name of that depositary or nominee. In those cases, one or more registered global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal or face amount of the securities to be represented by registered global securities. Unless and until it is exchanged in whole for securities in definitive registered form, a registered global security may not be transferred except as a whole by and among the depositary for the registered global security, the nominees of the depositary or any successors of the depositary or those nominees.

If not described below, any specific terms of the depositary arrangement with respect to any securities to be represented by a registered global security will be described in the prospectus supplement relating to those securities. We anticipate that the following provisions will apply to all depositary arrangements.

Ownership of beneficial interests in a registered global security will be limited to persons, called participants, that have accounts with the depositary or persons that may hold interests through participants. Upon the issuance of a registered global security, the depositary will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal or face amounts of the securities beneficially owned by the participants. Any dealers, underwriters or agents participating in the distribution of the securities will designate the accounts to be credited. Ownership of beneficial interests in a registered global security will be shown on, and the transfer of ownership interests will be effected only through, records maintained by the depositary, with respect to interests of participants, and on the records of participants, with respect to interests of persons holding through participants. The laws of some states may require that some purchasers of securities take physical delivery of these securities in definitive form. These laws may impair your ability to own, transfer or pledge beneficial interests in registered global securities.

So long as the depositary, or its nominee, is the registered owner of a registered global security, that depositary or its nominee, as the case may be, will be considered the sole owner or holder of the securities represented by the registered global security for all purposes under the applicable indenture, warrant agreement or unit agreement. Except as described below, owners of beneficial interests in a registered global security will not be entitled to have the securities represented by the registered global security registered in their names, will not receive or be entitled to receive physical delivery of the securities in definitive form and will not be considered the owners or holders of the securities under the applicable indenture, warrant agreement or unit agreement. Accordingly, each person owning a

beneficial interest in a registered global security must rely on the procedures of the depository for that registered global security and, if that person is not a participant, on the procedures of the participant through which the person owns its interest, to exercise any rights of a holder under the applicable indenture, warrant agreement, guaranteed trust preferred security or unit agreement. We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a registered global security desires to give or take any action that a holder is entitled to give or take under the applicable indenture, warrant agreement or unit agreement, the depository for the registered global security would authorize the participants holding the relevant beneficial interests to give or take that action, and the participants would authorize beneficial owners owning through them to give or take that action or would otherwise act upon the instructions of beneficial owners holding through them.

Principal, premium, if any, and interest payments on debt securities, and any payments to holders with respect to warrants or units, represented by a registered global security registered in the name of a depository or its nominee will be made to the depository or its nominee, as the case may be, as the registered owner of the registered global security. None of Charles River, the trustees, the warrant agents, the unit agents or any other agent of Charles River, agent of the trustees or agent of the warrant agents or unit agents will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the registered global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

We expect that the depository for any of the securities represented by a registered global security, upon receipt of any payment of principal, premium, interest or other distribution of underlying securities or other property to holders on that registered global security, will immediately credit participants' accounts in amounts proportionate to their respective beneficial interests in that registered global security as shown on the records of the depository. We also expect that payments by participants to owners of beneficial interests in a registered global security held through participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of those participants.

If the depository for any of these securities represented by a registered global security is at any time unwilling or unable to continue as depository or ceases to be a clearing agency registered under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and a successor depository registered as a clearing agency under the Exchange Act is not appointed by us within 90 days, we will issue securities in definitive form in exchange for the registered global security that had been held by the depository. Any securities issued in definitive form in exchange for a registered global security will be registered in the name or names that the depository gives to the relevant trustee, warrant agent, unit agent or other relevant agent of ours or theirs. It is expected that the depository's instructions will be based upon directions received by the depository from participants with respect to ownership of beneficial interests in the registered global security that had been held by the depository.

Plan of Distribution

Charles River and/or the selling security holders, if applicable, may sell the securities in one or more of the following ways (or in any combination) from time to time:

- through underwriters or dealers;
- directly to a limited number of purchasers or to a single purchaser;
- through agents;
- through a combination of any such methods; or
- through any other methods described in a prospectus supplement.

The prospectus supplement will state the terms of the offering of the securities, including:

- the name or names of any underwriters, dealers or agents;
- the purchase price of such securities and the proceeds to be received by Charles River, if any;

- any underwriting discounts or agency fees and other items constituting underwriters' or agents' compensation;

- any initial public offering price;

- any discounts or concessions allowed or reallocated or paid to dealers; and

- any securities exchanges on which the securities may be listed.

Any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

If we and/or the selling security holders, if applicable, use underwriters in the sale, the securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including:

- negotiated transactions,

- at a fixed public offering price or prices, which may be changed,

- at market prices prevailing at the time of sale,

- at prices related to prevailing market prices or

- at negotiated prices.

Unless otherwise stated in a prospectus supplement, the obligations of the underwriters to purchase any securities will be conditioned on customary closing conditions and the underwriters will be obligated to purchase all of such series of securities, if any are purchased.

We and/or the selling security holders, if applicable, may sell the securities through agents from time to time. The prospectus supplement will name any agent involved in the offer or sale of the securities and any commissions we pay to them. Generally, any agent will be acting on a best efforts basis for the period of its appointment.

We and/or the selling security holders, if applicable, may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase the securities from Charles River at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

Underwriters and agents may be entitled under agreements entered into with Charles River and/or the selling security holders, if applicable, to indemnification by Charles River and/or the selling security holders, if applicable, against certain civil liabilities, including liabilities under the Securities Act of 1933, as amended, or to contribution with respect to payments which the underwriters or agents may be required to make. Underwriters and agents may be customers of, engage in transactions with, or perform services for Charles River and its affiliates in the ordinary course of business.

Each series of securities will be a new issue of securities and will have no established trading market other than the common stock, which is listed on the New York Stock Exchange. Any underwriters to whom securities are sold for public offering and sale may make a market in the securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice. The securities, other than the common stock, may or may not be listed on a national securities exchange.

Where You Can Find More Information

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document that we file at the Public Reference Room of the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the

SEC at 1-800-SEC-0330. In addition, the SEC maintains an Internet site at <http://www.sec.gov>, from which interested persons can electronically access our SEC filings, including the registration statement and the exhibits and schedules thereto.

The SEC allows us to “incorporate by reference” the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC and which is incorporated by reference will automatically update and supersede this information. We incorporate by reference the documents listed below and all future filings made pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (other than information in the documents or filings that is deemed to have been furnished and not filed) until the termination of the offerings of all of the securities covered by this prospectus.

- Annual Report on Form 10-K for the fiscal year ended December 30, 2017, filed on February 13, 2018;

Definitive Proxy Statement for the 2018 annual meeting of shareholders scheduled to be held on May 8, 2018, filed with the SEC March 29, 2018 (those portions incorporated by reference into our Annual Report on Form 10-K);

Current Reports on Form 8-K, filed on January 16, 2018, February 13, 2018 (two filings), March 26, 2018 and April 3, 2018; and

Registration Statement on Form 8-A dated June 6, 2000, as amended by the Current Report on Form 8-K filed May 16, 2016.

Charles River will provide without charge upon written or oral request, a copy of any or all of the documents which are incorporated by reference to this prospectus. Requests should be directed to the Corporate Secretary, Charles River Laboratories International, Inc., 251 Ballardvale Street, Wilmington, MA 01887 (telephone number (781) 222-6000).

Information Concerning Forward-Looking Statements

This prospectus and Charles River’s financial statements and other documents incorporated by reference forward-looking statements, as that term is defined in the Private Securities Litigation Reform Act of 1995, regarding future events and the future results of Charles River Laboratories International, Inc. that are based on our current expectations, estimates, forecasts and projections about the industries in which we operate and the beliefs and assumptions of our management. Words such as “expect,” “anticipate,” “target,” “goal,” “project,” “intend,” “plan,” “believe,” “estimate,” “will,” “likely,” “may,” “designed,” “would,” “future,” “can,” “could” and other similar expressions that are predictive indicate future events and trends or which do not relate to historical matters are intended to identify such forward-looking statements.

These statements are based on our current expectations and beliefs and involve a number of risks, uncertainties and assumptions that are difficult to predict. We believe that these risks and uncertainties include, but are not limited to, those described in “Item 1A. Risk Factors” of our Annual Report on Form 10-K for the fiscal year ended December 30, 2017. In addition, we may use forward-looking statements when addressing topics such as: goodwill and asset impairments still under review; future demand for drug discovery and development products and services, including the outsourcing of these services; our expectations regarding stock repurchases, including the number of shares to be repurchased, expected timing and duration, the amount of capital that may be expended and the treatment of repurchased shares; present spending trends and other cost reduction activities by our clients; future actions by our management; the outcome of contingencies; changes in our business strategy, business practices and methods of generating revenue; the development and performance of our services and products; market and industry conditions, including competitive and pricing trends; our strategic relationships with leading pharmaceutical companies and venture capital limited partnerships, and opportunities for future similar arrangements; our cost structure; the impact of completed acquisitions (including Argenta, BioFocus, VivoPath, ChanTest, Sunrise, Celsis, Oncotest, WIL Research, Blue Stream, Agilux, Brains On-Line, KWS BioTest and MPI Research) and any in-process acquisitions; our expectations with respect to revenue growth and operating synergies (including the impact of specific actions intended to cause related improvements); the impact of specific actions intended to improve overall operating efficiencies and profitability (and our ability to accommodate future demand with our infrastructure), including gains and losses attributable to businesses we plan to close, consolidate or divest; changes in our expectations regarding future stock option, restricted stock, performance share units and other equity grants to employees and directors; expectations with respect to foreign currency exchange; assessing (or changing our assessment of) our tax positions for financial statement purposes; and our liquidity. In addition, these statements

include the impact of economic and market conditions on us and our clients; the effects of our cost-saving actions and the steps to optimize returns to shareholders on an effective and timely basis. These factors should not be construed as exhaustive and should be read with the other cautionary statements contained in or incorporated by reference into this prospectus.

Although we base these forward-looking statements on assumptions that we believe are reasonable when made, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from those made in or suggested by the forward-looking statements contained in or incorporated by reference into this prospectus. In addition, even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate are consistent with the forward-looking statements contained in or incorporated by reference into this prospectus, those results or developments may not be indicative of results or developments in subsequent periods.

Given these risks and uncertainties, you are cautioned not to place undue reliance on these forward-looking statements. Any forward-looking statements that we make in this prospectus speak only as of the date of those statements or, in the case of statements incorporated by reference, as of the date of the incorporated document, and we undertake no obligation to update those statements or to publicly announce the results of any revisions to any of those statements to reflect future events or developments. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless expressed as such, and should only be viewed as historical data.

Legal Opinions

The validity of the securities in respect of which this prospectus is being delivered will be passed on for us by Davis Polk & Wardwell LLP, New York, New York.

Experts

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 30, 2017 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses to be borne by the registrant in connection with the offerings described in this registration statement.

| | |
|--|-------|
| Registration fee | \$* |
| Transfer Agent and Trustee fees and expenses | \$ ** |
| Printing | \$ ** |
| Accounting fees and expenses | \$ ** |
| Legal fees and expenses | \$ ** |
| Rating Agency fees | \$ ** |
| Miscellaneous | \$ ** |
| Total | \$ ** |

* Omitted because the registration fee is being deferred pursuant to Rule 456(b).

** Not presently known.

Item 15. Indemnification of Directors and Officers.

Section 145 of the General Corporation Law of the State of Delaware (the “Delaware General Corporation Law”) provides that a corporation may indemnify directors and officers as well as other employees and individuals against expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any threatened, pending or completed actions, suits or proceedings in which such person is made a party by reason of such person being or having been a director, officer, employee or agent to the registrant. The Delaware General Corporation Law provides that Section 145 is not exclusive of other rights to which those seeking indemnification may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise. Charles River Laboratories International, Inc.’s second amended and restated certificate of incorporation provides for indemnification by the registrant of its directors, officers and employees to the fullest extent permitted by the Delaware General Corporation Law.

Section 102(b)(7) of the Delaware General Corporation Law permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability for any breach of the director's duty of loyalty to the corporation or its stockholders, for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, for unlawful payments of dividends or unlawful stock repurchases, redemptions or other distributions, or for any transaction from which the director derived an improper personal benefit. The registrant's second amended and restated certificate of incorporation provides for such limitation of liability.

The registrant maintains standard policies of insurance under which coverage is provided to its directors and officers against loss arising from claims made by reason of breach of duty, misstatement, error or omission committed in their capacity as directors or officers of the registrant. Such policies of insurance also provide coverage to the registrant with respect to payments which may be made by the registrant to such officers and directors pursuant to the above indemnification provision or otherwise as a matter of law.

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Item 16. Exhibits.

The following is a list of all exhibits filed as a part of this registration statement on Form S-3, including those incorporated herein by reference.

| Exhibit No. | Document |
|-------------|--|
| 1.1* | Form of Underwriting Agreement. |
| 3.1 | <u>Second Amended and Restated Certificate of Incorporation (filed as Exhibit 3.1 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-35524), as amended, filed June 23, 2000).</u> |
| 3.2 | <u>Fifth Amended and Restated By-laws (filed as Exhibit 3.2 to the Registrant's Current Report on Form 8-K dated May 16, 2016).</u> |
| 4.1 | <u>Form of Senior Debt Indenture between the Registrant and U.S. Bank National Association.</u> |
| 4.2 | <u>Form of Subordinated Debt Indenture between the Registrant and U.S. Bank National Association.</u> |
| 4.3* | Form of Senior Note. |
| 4.4* | Form of Subordinated Note. |
| 4.5* | Form of Warrant Agreement. |
| 4.6* | Form of Purchase Contract. |
| 4.7* | Form of Unit Agreement. |
| 4.8 | <u>Form of Certificate representing shares of Common Stock, \$0.01 par value per share (filed as Exhibit 4.1 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-35524), as amended, filed June 23, 2000).</u> |
| 5.1 | <u>Opinion of Davis Polk & Wardwell LLP.</u> |
| 12.1 | <u>Statement regarding computation of Ratio of Earnings to Fixed Charges.</u> |
| 23.1 | <u>Consent of PricewaterhouseCoopers LLP, an independent registered public accounting firm.</u> |
| 23.2 | <u>Consent of Davis Polk & Wardwell LLP (included in Exhibit 5.1).</u> |
| 24.1 | <u>Power of Attorney (included on the signature page of the Registration Statement).</u> |
| 25.1 | <u>Statement of Eligibility of U.S. Bank National Association on Form T-1 for Senior Debt Indenture.</u> |
| 25.2 | <u>Statement of Eligibility of U.S. Bank National Association on Form T-1 for Subordinated Debt Indenture.</u> |

* To be filed by amendment or as an exhibit to a Current Report on Form 8-K.

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;

(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 (i), (ii) and (iii) above 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 herein, 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.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(A) 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

(B) 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.

(5) 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:

The undersigned registrant undertakes that 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.

(b) 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.

(c) 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.

(d) The undersigned registrant hereby undertakes to supplement the prospectus, after the expiration of any warrant or subscription period, to set forth the results of any warrant or subscription offer, the transactions by the underwriters during the subscription period, the amount of unsubscribed securities to be purchased by the underwriters, and the terms of any subsequent reoffering thereof. If any public offering by the underwriters is to be made on terms differing from those set forth on the cover page of the prospectus, a post-effective amendment will be filed to set forth the terms of such offering.

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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 filing 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 Wilmington, in the State of Massachusetts, on May 8, 2018.

CHARLES RIVER LABORATORIES INTERNATIONAL, INC.

By: /s/ DAVID SMITH

Name: David Smith

Title: Corporate Executive Vice President and Chief Financial Officer

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints James C. Foster and David Smith, and each of them, his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement and registration statements filed pursuant to Rules 413 or 462 under the Securities Act of 1933, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or either of them or their or his or her 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 by the following persons in the capacities and on the dates indicated.

| Signatures | Title | Date |
|---|--|--------------------|
| <p>/s/ JAMES C. FOSTER</p> <p>By: James C. Foster</p> | <p>Chief Executive Officer and Chairman <i>(Principal Executive Officer)</i></p> | <p>May 8, 2018</p> |
| <p>/s/ DAVID R. SMITH</p> <p>By: David R. Smith</p> | <p>Corporate Executive Vice President and Chief Financial Officer <i>(Principal Financial Officer)</i></p> | <p>May 8, 2018</p> |
| <p>By: /s/ Michael G. Knell</p> | | <p>May 8, 2018</p> |

* To be filed by amendment or as an exhibit to a Current Report on Form 8-K.

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