## PROSPECTUS SUPPLEMENT NO. 12 TO PROSPECTUS DATED APRIL 24, 2002

## CHARLES RIVER LABORATORIES INTERNATIONAL, INC.

Filed Pursuant to Rule 424 (b) (3) of the Rules and Regulations Under the Securities Act of 1933

Registration Statement No. 333-85894

\$185,000,000
3.50% Senior Convertible Debentures due February 1, 2022
and
Common Stock issuable upon Conversion of the Debentures

This prospectus supplement will be used by the holders of debentures listed below to resell their debentures or the shares of our common stock, par value \$0.01 per share, issuable upon conversion of the debentures.

You should read this prospectus supplement together with the prospectus dated April 24, 2002, which is to be delivered with this prospectus supplement.

The table below sets forth additional and updated information concerning beneficial ownership of the debentures, and supplements and, to the extent inconsistent with, amends the table appearing under the caption "Selling Securityholders" beginning on page 32 of the prospectus. To the extent that a selling securityholder is listed both in the table below and in the table appearing in the prospectus, the information set forth below regarding that selling securityholder supersedes the information set forth in the prospectus. We have prepared this table based on information given to us by the selling securityholders listed below prior to the date hereof.

Name	Principal Amount of Debentures Owned and that May be Sold	Percentage of Debentures Outstanding	Number of Underlying Shares of Common Stock that May be Sold	Percentage of Common Stock Outstanding (1)
Nations Convertible Securities Fund	1,505,000	*	38,718.81	*
Convertible Securities Fund	20,000	*	514.54	*

Less than 1%

(1) Calculated based on Rule 13d-3(d)(1)(i) of the Exchange Act using 45,846,745 shares of common stock outstanding as of January 24, 2004. In calculating this amount for each holder, we treated as outstanding the number of shares of common stock issuable upon conversion of all of that holder's debentures, but we did not assume conversion of any other holder's debentures.

Investing in the debentures involves risks that are described in "Risk Factors Relating to Our Debt" beginning on page 9 of the prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved 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 supplement is November 17, 2004

## QuickLinks

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