

SECURITIES AND EXCHANGE COMMISSION

FORM 10-K/A

Annual report pursuant to section 13 and 15(d) [amend]

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FILER

**LARGE SCALE BIOLOGY CORP**

CIK: **1108951** | IRS No.: **770154648** | State of Incorp.: **DE** | Fiscal Year End: **1231**  
Type: **10-K/A** | Act: **34** | File No.: **000-31275** | Film No.: **05790838**  
SIC: **2834** Pharmaceutical preparations

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, DC 20549

**FORM 10-K**

(Amendment No. 1)

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.**

For the year ended December 31, 2004

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

TRANSITION PERIOD FROM TO .

Commission File Number 0-31275

**LARGE SCALE BIOLOGY CORPORATION**

(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
Incorporation or organization)

77-0154648  
(I.R.S. employer  
identification number)

3333 Vaca Valley Parkway, Vacaville, CA 95688  
(Address of principal executive offices and zip code)

(707) 446-5501  
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act: None

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

Common Stock, \$0.001 par value

Preferred Stock Purchase Rights

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the Registrant is an accelerated filer (as defined in Rule 12b-2 of the Securities Exchange Act of 1934). Yes  No

The aggregate market value of voting stock held by non-affiliates of the Registrant as of June 30, 2004 was approximately \$33.8 million (based on the last reported sales price of \$1.38 on June 30, 2004 on the NASDAQ National Market).

The number of shares outstanding of the Registrant's common stock as of April 29, 2005 was 31,486,299.

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## EXPLANATORY NOTE

This Amendment No. 1 to Form 10-K amends the Registrant's Annual Report on Form 10-K, as filed by the Registrant with the Securities and Exchange Commission on April 15, 2005, and is being filed solely to amend Part III, Item 10 through Item 14. The reference on the cover of the Annual Report on Form 10-K to the incorporation by reference of Registrant's Definitive Proxy Statement into Part III of the Annual Report is hereby amended to delete that reference.

In addition, we have filed the following exhibits herewith:

- 31.3 Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/15d-15(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.4 Certification of the Chief Financial Officer pursuant to Rule 13a-14(a)/15d-15(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

Except as otherwise stated herein, no other information contained in the Annual Report on Form 10-K is amended by this Amendment No. 1 to Form 10-K.

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## PART III

### Item 10. Directors and Executive Officers of the Registrant

#### Directors

The names of the Company's directors, and their ages as of April 29, 2005, their principal occupation, and the period during which they have served as a director are set forth in the following table and paragraphs:

<u>Name</u>	<u>Age</u>	<u>Principal Occupation</u>	<u>Served as Director Since</u>
Robert L. Erwin	51	Chairman of the Board of the Company and Managing Director of Bio-Strategic Directors, LLC	1987
Kevin J. Ryan	64	President and Chief Executive Officer	1992-1996; 2001
Bernard I. Grosser, M.D.	76	Professor and Chairman, Department of Psychiatry, University of Utah School of Medicine	1996
Sol Levine	76	Former President of Revlon, Inc.	1992

*Robert L. Erwin* co-founded the Company in 1987 and has been Chairman of the Board since 1992. From 1988 to 1992, he served as President. Mr. Erwin served as our Chief Executive Officer from 1992 to April 2003. Prior to joining the Company, he co-founded Sungene Technologies Corporation, a biotechnology company, and served as its Vice President of Research and Product Development from 1981 through 1986. Since January 2004, Mr. Erwin has served as Managing Director of Bio-Strategic Directors, LLC, a business and technology consulting company. Mr. Erwin received his M.S. in genetics from Louisiana State University.

*Kevin J. Ryan* has been our President and Chief Executive Officer since April 2003. Mr. Ryan was our President from 1991 to 1995, served as a director of the Company from 1992 to 1996, and has been a member of the board of directors since May 2001 when he rejoined our board. From 2000 through 2003, Mr. Ryan served in an active capacity with Sonic Innovations, Inc. and managed a number of private investments. Mr. Ryan served as President, Chief Executive Officer and a director of Wesley Jessen VisionCare, Inc., a contact lens company, from June 1995 through October 2000. Mr. Ryan has served as Chairman of the Board of CibaVision's Advisory Committee. From 1987 to 1990, Mr. Ryan served as President of Barnes-Hind's contact lens business; from 1983 to 1987, as President of Revlon VisionCare (a division of Revlon, Inc.); from 1978 to 1983, as President of Barnes-Hind (then a part of Revlon VisionCare); and from 1974 to 1978, as Vice President of Sales and Marketing at the Westwood Division of Bristol-Myers. Mr. Ryan is a managing member of Technology Directors II, LLC (which holds 11.8% of our outstanding common stock) and Technology Directors II BST, LLC, each of which is an investment limited liability company, and the Chairman of the Board of Directors of Sonic Innovations, Inc., a medical device company. Mr. Ryan received his bachelor's degree in business and marketing from the University of Notre Dame.

*Bernard I. Grosser, M.D.* has been a director of the Company since January 1996. Dr. Grosser has served as a Professor and as the Chairman of the Department of Psychiatry of the University of Utah School of Medicine since 1982. He has also served as a director of Human Pheromone Sciences, Inc., a biotechnology-based company in the field of human pheromone products, since 1990. Dr. Grosser received his B.A. from the University of Massachusetts, his M.S. in zoology from the University of Michigan and his M.D. from Case Western Reserve University.

*Sol Levine* has been a director of the Company since March 1992. Mr. Levine is a nonvoting member of Technology Directors II, LLC and Technology Directors II BST, LLC, each of which is an

investment limited liability company. Mr. Levine was the President of Revlon, Inc. until his retirement in 1990.

There are no family relationships among any of the directors or officers of the Company.

## Executive Officers

The names of the Company's executive officers, their ages and positions as of April 29, 2005 are set forth in the following table and paragraphs:

Name	Age	Position
Kevin J. Ryan	64	President and Chief Executive Officer
Ronald J. Artale	55	Senior Vice President, Chief Operating Officer and Chief Financial Officer
Michael D. Centron	49	Vice President, Finance and Administration, and Treasurer
Laurence K. Grill, Ph.D.	55	Senior Vice President, Research and Chief Scientific Officer
John S. Rakitan	60	Senior Vice President, General Counsel and Secretary
Daniel Tusé, Ph.D.	53	Vice President, Business Development

*Kevin J. Ryan*, See "Directors" for Mr. Ryan's biography.

*Ronald J. Artale* joined the Company as a Senior Vice President and our Chief Financial Officer in November 2001 and has served in those capacities since that time. Mr. Artale has also served as our Chief Operating Officer since April 2003. Mr. Artale served as Vice President, Chief Financial Officer and Treasurer from April 2001 to February 2002 and a member of the board of directors since June 2003 of Addition Technology, Inc., a privately-held vision correction medical device company. Since April 2001, Mr. Artale served as a Managing Member and Executive Vice President of the venture capital firms VMA, LLC and VMG, LLC. From 1996 to March 2001, Mr. Artale served as Vice President, Finance and Corporate Controller of Wesley Jessen VisionCare, Inc., a contact lens company. Mr. Artale received his B.B.A. in accounting from Niagara University and his M.B.A. from St. John's University.

*Michael D. Centron* has served as our Treasurer since 1991 and as a Vice President since March 2001. In June 2003 he was appointed Vice President of Finance and Administration. Mr. Centron joined the Company as the Controller in 1988. Mr. Centron is a certified public accountant and received his B.S. in economics from the Wharton School of the University of Pennsylvania and his M.B.A. from the Haas School of the University of California, Berkeley.

*Laurence K. Grill, Ph.D.* has served as our Chief Scientific Officer since June 2002. Dr. Grill co-founded the Company and served as our Vice President, Research from 1987 to 1999 and as Senior Vice President, Research since 1999. He received his Ph.D. in plant pathology from the University of California at Riverside.

*John S. Rakitan* is our General Counsel and Secretary and a Senior Vice President. Mr. Rakitan joined the Company in 1987 as the Controller. He served as Treasurer from 1988 to 1990. Mr. Rakitan was appointed Vice President, General Counsel and Assistant Secretary in 1988, Secretary in 1991 and Senior Vice President in 1999. Before joining the Company, Mr. Rakitan was an attorney in private practice. Mr. Rakitan received his J.D. from the University of Notre Dame.

*Daniel Tusé, Ph.D.* has served as Vice President, Business Development since January 2002 and has served as the head of our business development group since October 2002. Dr. Tusé joined the Company as Vice President, Pharmaceutical Development in 1995 and served in that position until January 2002. Before joining the Company, Dr. Tusé was Assistant Director of the Life Sciences

Division of SRI International, a business consulting firm. Dr. Tusé received his Ph.D. in microbiology from the University of California, Davis.

### **Identification of Audit Committee and Financial Expert**

The audit committee of the Company's Board of Directors is composed of independent directors who, in accordance with the audit committee charter, assist the board of directors in fulfilling its responsibility for oversight of the quality and integrity of the accounting, auditing and financial reporting practices of the Company. Currently, two directors comprise the audit committee: Mr. Levine and Dr. Grosser. Mr. Levine serves as Chairman of the audit committee.

Each of the members of the audit committee is an "independent director" as that term is defined in Rule 4200(a)(15) of the Marketplace Rules of the National Association of Securities Dealers, Inc. The members of the audit committee also meet the independence requirements of Rule 10A-3(b)(i) of the Securities Exchange Act of 1934, and each of the criteria set forth in Rule 4350(d)(2)(A) of the NASD Marketplace Rules. The board of directors has determined that Mr. Levine qualifies as an "audit committee financial expert" as defined by the rules of the Securities and Exchange Commission.

### **Section 16(a) Compliance**

The members of the board of directors, our executive officers and persons who hold more than 10% of our outstanding common stock are subject to the reporting requirements of Section 16(a) of the Securities Exchange Act of 1934, as amended, which require them to file reports with respect to their ownership of our common stock and their transactions in such common stock. Based solely upon the review of the Forms 3, 4 and 5 furnished to the Company and certain representations made to the Company, the Company believes that during 2004, all members of the board of directors, our executive officers and person(s) who hold more than 10% of our outstanding common stock timely filed all reports required to be filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 with respect to transactions in equity securities of the Company.

### **Code of Ethics**

The Company has adopted a Code of Conduct and Ethics, which is posted on and can be accessed at the Company's website at <http://www.lsbcc.com/policies>. All financial and senior managers and directors of the Company including the Chief Executive Officer and our senior financial officers, are required to adhere to the code of conduct and ethics in discharging their work-related responsibilities. Employees are required to report any conduct that they believe in good faith to be an actual or apparent violation of the code of conduct and ethics.

## Item 11. Executive Compensation

The following table summarizes the compensation earned by our Chief Executive Officer and the four other most highly compensated executive officers, all acting in such capacities as of December 31, 2004, (collectively referred to as the "Named Executive Officers"). The aggregate amount of perquisites and other personal benefits, securities or properties received by each Named Executive Officer was less than either \$50,000 or 10% of the total annual salary and bonus reported for each respective Named Executive Officer in each year reported below.

### Summary Compensation Table

Name and Principal Position	Year	Annual Compensation		Long-Term Compensation Awards		All Other Compensation(4)
		Salary	Other	Restricted Stock Award	Securities Underlying Options	
Kevin J. Ryan President and Chief Executive Officer	2004	\$ 30,000	\$ -	-	-	-
	2003	21,500	-	-	-	\$ -
	2002	-	-	-	-	-
Ronald J. Artale Senior Vice President, Chief Operating Officer and Chief Financial Officer	2004	242,500(1)	24,000(2)	-	100,000	2,000
	2003	220,000(1)	27,700(2)	-	250,000	2,000
	2002	220,000(1)	33,000(2)	-	50,000	2,200
Lawrence K. Grill, Ph.D. Senior Vice President, Research and Chief Scientific Officer	2004	190,000(3)	-	-	-	3,100
	2003	190,000(3)	-	-	40,000	3,200
	2002	184,250(3)	-	-	50,000	4,700
John S. Rakitan Senior Vice President and General Counsel and Secretary	2004	214,200(3)	-	-	100,000	3,600
	2003	190,000(3)	-	-	50,000	3,300
	2002	190,000(3)	-	-	50,000	4,900
Daniel Tusé, Ph.D. Senior Vice President, Biopharmaceutical Development	2004	167,200	-	-	-	3,100
	2003	153,000	-	-	50,000	3,000
	2002	151,700	-	-	50,000	4,200

- (1) Includes salary forgone pursuant to a mandatory reduction of \$22,000 in 2004, \$22,000 in 2003 and \$11,000 in 2002. In lieu thereof the Company issued shares of its common stock under the 2000 Stock Incentive Plan at an equivalent fair market value. Stock issued in lieu of the mandatory reduction is subject to a risk of forfeiture and Mr. Artale may not be entitled to the stock issued to him.
- (2) The Company provided housing, including basic furnishings, for Mr. Artale near the Company's corporate office. In addition, the Company reimbursed Mr. Artale for air travel expenses incurred between his personal residence outside of California and the Company's corporate office.
- (3) Includes salary forgone pursuant to a mandatory reduction of \$19,000 in 2004, \$19,000 in 2003 and \$9,500 in 2002. In lieu thereof the Company issued shares of its common stock under the 2000 Stock Incentive Plan at an equivalent fair market value. Stock issued in lieu

of the mandatory reduction is subject to a risk of forfeiture and Mr. Rakitan and Dr. Grill may not be entitled to the stock issued to them.

- (4) Comprised of term life insurance premium of less than \$1,000 and 401(k) matching contributions.

## Stock Option Grants in 2004

The following table summarizes information regarding stock options granted under the 2000 Stock Incentive Plan to the Named Executive Officers in 2004. Unless otherwise indicated below, options generally become exercisable and vest ratably over a period of 12 to 16 quarters.

Name	Individual Grants				Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation for Option Term(3)	
	Number of Securities Underlying Options Granted	Percent of Total Options Granted to Employees in 2004(1)	Exercise Price(2)	Expiration Date	5%	10%
Kevin J. Ryan	–	–	–	–	–	–
Ronald J. Artale	100,000	18.6%	\$ 1.92	3/01/2014	\$ 120,750	\$ 306,000
John S. Rakitan	100,000	18.6%	1.92	3/01/2014	120,750	306,000
Lawrence K. Grill, Ph.D.	–	–	–	–	–	–
Daniel Tusé, Ph.D.	–	–	–	–	–	–

- (1) Based upon a total of 539,000 stock options granted to all employees in 2004.
- (2) Exercise prices of granted stock options are equal to the closing price of the Company's common stock as reported on the NASDAQ National Market on the date of grant.
- (3) In accordance with Securities and Exchange Commission rules, these columns quantify the hypothetical gains that could be achieved by the respective options assuming the options are exercised at the end of the option terms and the Company's stock price appreciates from the date of grant at compounded annual rates of 5% and 10%. Actual gains, if any, on stock option exercises will depend on the future performance of our common stock and overall stock market conditions. If our stock price does not exceed the exercise price at the time of exercise, the realized value to the option holder will be zero.

## Aggregated Option Exercises in Last Year and Year-End Option Values

The following table summarizes information regarding stock options exercised by the Named Executive Officers in 2004 and the value of unexercised "in-the-money" options they held at December 31, 2004.

Name	Common Shares Acquired on Exercise	Value Realized	Number of Securities Underlying Unexercised Options at December 31, 2004(1)		Value of Unexercised In-the-Money Options at December 31, 2004(2)	
			Exercisable	Unexercisable	Exercisable	Unexercisable
Kevin J. Ryan	–	–	–	–	\$ –	\$ –
Ronald J. Artale	–	–	166,667	133,333	20,000	19,000
John S. Rakitan	–	–	61,667	28,333	4,250	3,250
Lawrence K. Grill, Ph.D.	–	–	66,667	33,333	5,000	4,000
Daniel Tusé, Ph.D.	–	–	66,667	33,333	5,000	4,000

- (1) Options generally become exercisable and vest ratably over a period of 12 to 16 quarters.
- (2) In-the-money options represents unexercised options having a per share exercise price below \$1.26, the closing price of the Company's common stock at December 31, 2004, as reported on the NASDAQ National Market. The value of unexercised in-the-money options equals the number of in-the-money options multiplied by the excess of \$1.26 over the per-share exercise prices of the options. The value of unexercised in-the-money options at December 31, 2004, may never be realized by the option holders.

## Director Compensation

During 2004 we did not pay cash compensation to directors who are not our employees, but they did receive stock options and reimbursement of out-of-pocket travel expenses for attendance at meetings of the board of directors. Beginning in 2005 any new directors who are not our employees will receive \$2,500 for in-person attendance and \$500 for attendance by phone at regularly scheduled board meetings. Directors who are also our employees do not receive additional compensation for serving as directors. Any new non-employee directors will receive automatic option grants to purchase 50,000 shares of common stock upon becoming directors with an exercise price equal to the fair market value of our stock on that date. Current non-employee directors receive automatic option grants to purchase 6,000 shares of common stock on the date of each annual meeting of stockholders with an exercise price equal to the fair market value of our stock on that date, if they continue to serve as directors. Any new non-employee directors will receive automatic option grants to purchase 10,000 shares of common stock on the date of each annual meeting of stockholders with an exercise price equal to the fair market value of our stock on that date, if they continue to serve as directors. These automatic option grants are immediately exercisable. However, the shares issued upon exercise of these options remain subject to the Company's right to repurchase the shares upon termination of board service. Initial automatic option grants vest, and the Company's right of repurchase lapses, ratably over twenty quarterly periods from the date of grant. Subsequent automatic option grants vest, and the Company's right of repurchase lapses, ratably over four quarterly periods from the date of grant.

## Employment Contracts, Termination of Employment Arrangements and Change of Control Agreements

In November 2001, Ronald J. Artale joined the Company as Senior Vice President and Chief Financial Officer. Mr. Artale's offer letter provided for an initial salary of \$220,000 commencing on November 1, 2001. As a result of mandatory reductions in cash compensation, Mr. Artale's annual salary was reduced to \$198,000. Mr. Artale's annual salary was subsequently increased to \$225,000 during 2004. Mr. Artale received 17,354, 26,171 and 10,112 shares of common stock under the Company's 2000 Stock Incentive Plan with an aggregate value equivalent to the amount of the mandatory reduction of his cash compensation in 2004, 2003 and 2002, respectively. These shares are subject to a risk of forfeiture and Mr. Artale may not be entitled to the stock issued to him. If he is terminated without cause, he will receive severance equivalent to twelve months salary. Mr. Artale also received options to purchase 400,000 shares of common stock at an exercise price of \$3.45 per share under the 2000 Stock Incentive Plan. These options vest in equal quarterly installments over a period of three years. All unvested options will immediately vest if the Company is acquired. Pursuant to the offer letter and an extension thereof, Mr. Artale received payments for various relocation, housing and travel expenses in 2004. Mr. Artale's employment is at will and may be terminated at any time, with or without formal cause.

Mr. Ryan's current annual salary is \$30,000. Mr. Ryan's employment is at will and may be terminated at any time, with or without formal cause.

Mr. Grill's current annual salary is \$171,000. Mr. Grill's employment is at will and may be terminated at any time, with or without formal cause.

Mr. Rakitan's current annual salary is \$200,000. Mr. Rakitan's employment is at will and may be terminated at any time, with or without formal cause.

Mr. Tusé's current annual salary is \$170,000. Mr. Tusé's employment is at will and may be terminated at any time, with or without formal cause.

There currently is no bonus plan in effect applicable to the Named Executive Officers.

## Compensation Committee Interlocks and Insider Participation

During 2004 the compensation committee consisted of Dr. Grosser and Mr. Levine. Mr. Carton served on the committee until he passed away on September 7, 2004. None of our executive officers serve as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of our board of directors or compensation committee.

## Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The following table sets forth certain information known by us with respect to the beneficial ownership of the Company's common stock as of April 29, 2005 by:

Each person or entity who is known by us to beneficially own greater than 5% of our outstanding common stock;

Each of the Named Executive Officers (see "Executive Compensation and Related Information" below);

Each of our directors and director nominees;

All current directors and executive officers as a group.

The percentage of shares beneficially owned is based on 31,486,299 shares of common stock outstanding as of April 29, 2005. Shares of common stock subject to stock options and warrants that are currently exercisable or exercisable within 60 days of April 29, 2005 are deemed to be outstanding for the purpose of computing the percentage ownership of that person but are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Unless indicated below, the persons and entities named in the table have sole voting and sole investment power with respect to all shares beneficially owned, subject to community property laws where applicable.

Unless otherwise indicated, the principal address of each of the stockholders below is c/o Large Scale Biology Corporation, 3333 Vaca Valley Parkway, Suite 1000, Vacaville, CA 95688.

<b>Beneficial Owner</b>	<b>Number of Shares Beneficially Owned</b>	<b>Percentage of Shares Beneficially Owned</b>
Kevin J. Ryan (1)	6,115,654	18.5%
John W. Maki (2)	3,710,953	11.8
John J. O'Malley (3)	3,710,953	11.8
Technology Directors II, LLC (4) 460 Bloomfield Ave., Suite 200 Montclair, NJ 07042	3,667,453	11.6
Robert L. Erwin (5)	969,217	3.0
Ronald J. Artale (6)	782,980	2.4
John S. Rakitan (7)	557,496	1.8
Laurence K. Grill, Ph. D. (8)	529,771	1.7
Sol Levine (9)	401,420	1.3
Daniel Tusé, Ph.D. (10)	354,333	1.1
Bernard I. Grosser, M.D. (11)	188,045	*
Directors and officers as a group (9 persons) (12)	10,169,441	28.9

\* Less than one percent.

- (1) Includes 3,667,453 shares held by Technology Directors II, LLC, 68,196 shares held by the Ryan Family Trust, of which Mr. Ryan is Trustee, 12,000 shares issuable upon exercise of options that are exercisable currently or within 60 days of April 29, 2005, 631,579 maximum shares issuable if Mr. Ryan elects to convert his \$600,000 convertible note payable to him calculated by dividing \$600,000 by the greater of \$.95 or 90% of the average closing price the 22 trading days prior to conversion and 903,614 shares issuable if Mr. Ryan elects to exercise his warrant to purchase shares of the Company's common stock. Mr. Ryan is a managing member of Technology Directors II, LLC. Mr. Ryan disclaims beneficial ownership of the shares held by Technology Directors II, LLC except to the extent of his pecuniary interest in this entity.
- (2) Represents 3,667,453 shares held by Technology Directors II, LLC and 43,500 shares issuable upon exercise of options that are exercisable currently or within 60 days of April 29, 2005. Mr. Maki is a managing member of Technology Directors II, LLC. Mr. Maki disclaims beneficial ownership of the shares held by Technology Directors II, LLC except to the extent of his pecuniary interest in this entity.
- (3) Represents 3,667,453 shares held by Technology Directors II, LLC and 43,500 shares issuable upon exercise of options that are exercisable currently or within 60 days of April 29, 2005. Mr. O'Malley is a managing member of Technology Directors II, LLC. Mr. O'Malley disclaims beneficial ownership of the shares held by Technology Directors II, LLC except to the extent of his pecuniary interest in this entity.
- (4) Messrs. Maki, O'Malley and Ryan share voting and dispositive power with respect to Technology Directors II, LLC.
- (5) Includes 25,000 shares held by the Marti Nelson Medical Foundation; 13,500 shares held by the Erwin and Nelson Exemption Trust, of which Mr. Erwin is Trustee; 434,675 shares held by the Erwin and Nelson Living Trust, of which Mr. Erwin is Trustee; and 356,000 shares issuable upon exercise of options that are exercisable currently or within 60 days of April 29, 2005. Mr. Erwin is a director and co-founder of the Marti Nelson Medical Foundation and disclaims beneficial ownership of the shares held by the Foundation.
- (6) Includes 658,332 shares issuable upon exercise of options that are exercisable currently or within 60 days of April 29, 2005.
- (7) Includes 21,000 shares held by Timothy J. Rakitan Trust, of which Mr. John S. Rakitan is Trustee, 21,000 shares held by John T. Rakitan Trust, of which Mr. John S. Rakitan is Trustee, and 249,999 shares issuable upon exercise of options that are exercisable currently or within 60 days of April 29, 2005.
- (8) Includes 218,500 shares held by the Grill Family Trust, of which Dr. Grill is Trustee, and 201,666 shares issuable upon exercise of options that are exercisable currently or within 60 days of April 29, 2005.
- (9) Includes 61,500 shares issuable upon exercise of options that are exercisable currently or within 60 days of April 29, 2005. Mr. Levine is a nonvoting member of Technology Directors II, LLC. Accordingly, his holdings do not include shares held by this entity.
- (10) Includes 344,333 shares issuable upon exercise of options that are exercisable currently or within 60 days of April 29, 2005.

- (11) Includes 61,500 shares issuable upon exercise of options that are exercisable currently or within 60 days of April 29, 2005.
- (12) Includes an aggregate of 2,143,663 shares issuable upon exercise of options that are exercisable currently or within 60 days of April 29, 2005, 631,579 maximum shares issuable if Mr. Ryan elects to convert his \$600,000 convertible note payable to him calculated by dividing \$600,000 by the greater of \$.95 or 90% of the average closing price the 22 trading days prior to conversion and 903,614 shares issuable if Mr. Ryan elects to exercise his warrant to purchase shares of the Company's common stock.

## Equity Compensation Plans Information

The Company's equity compensation plans are fully described in our annual report for the year ended December 31, 2004. The Company maintains the 2000 Stock Incentive Plan (the "Plan") and the 2000 Employee Stock Purchase Plan (the "ESPP"), each of which has been approved by the Company's stockholders. Information related to our equity compensation plans as of December 31, 2004, is set forth below.

	(a)	(b)	(c)
	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column(a))
Equity compensation plans approved by security holders	7,106,571(1)(2) \$	4.20	4,077,001(3)(4)
Equity compensation plans not approved by security holders	250,000(5)	5.13	-
<b>Total</b>	<b>7,356,571</b>	<b>4.23</b>	<b>4,077,001</b>

- (1) Excludes 979,913 shares of restricted common stock issued by the Plan under the terms of the Company's Stock Issuance Program. These shares are subject to a risk of forfeiture or may be subject to repurchase by the Company at a weighted average exercise price of \$0.93.
- (2) Excludes purchase rights accruing under the ESPP.
- (3) Includes 2,939,823 and 1,137,178 shares available for issuance under the Plan and the ESPP, respectively.
- (4) Pursuant to the Plan and the ESPP, on each January 1, the number of shares of common stock reserved for issuance under the Plan and the ESPP shall be increased automatically by a number of shares equal to 4% and 1%, respectively, of the total number of outstanding shares of common stock on the last trading day of the immediately preceding month, provided that no such increase under the Plan and the ESPP may exceed 2,000,000 and 350,000 shares, respectively, in any calendar year.
- (5) On November 1, 2001, John D. Fowler, Jr. was issued a warrant to purchase 250,000 shares of common stock as additional compensation to him upon entering into his employment with the Company.

### Item 13. Certain Relationships and Related Transactions

From January 1, 2004, to the present, there are no transactions in which the amount involved exceeds \$60,000 to which we or any of our subsidiaries is a party and in which any executive officer, director, 5% beneficial owner of our common stock or member of the immediate family of any of the foregoing persons has a direct or indirect material interest, except for payments set forth under Item 11 of this Amendment No. 1 to Form 10-K and those described below.

On March 3, 2005, we issued a \$600,000 convertible promissory note, or Note, to Kevin J. Ryan, our President and Chief Executive Officer and a member of our Board of Directors. The Note bears interest at 8% and is due on July 1, 2005. The Note is convertible into our Common Stock, at the option of the holder, on or before the due date, at a conversion price equal to the greater of the closing price of our Common Stock on March 3, 2005, or 90% of the average of the closing prices of our common stock on the 22 trading days ending the day before the conversion of the Note. The Note may be prepaid by us without penalty at any time. We granted piggyback registration rights with respect to the shares issuable upon exercise of the Note, with respect to any registration filing by us, other than a filing pursuant to Form S-4 or Form S-8.

On April 15, 2005, we received \$3,000,000 in cash in exchange for a promissory note, or Promissory Note, issued to Kevin J. Ryan, our President and Chief Executive Officer and a member of our Board of Directors. The Promissory Note bears interest at the prime rate plus two percent per annum initially at 7.75% due monthly starting May 15, 2005 with a rate not less than 7.25%. The Promissory Note is due on April 17, 2006. Borrowings under the loan are secured by certain patented intellectual property. The Promissory Note may be prepaid by us without penalty at any time. The holder of the Promissory Note may elect to be repaid up to \$1,500,000 as a result of any Company financing event with net proceeds of \$4,000,000 or more.

In connection with the Promissory Note, we issued a common stock purchase warrant that expires on April 15, 2011. The holder of the warrant has the option either to purchase 903,614 shares of our common stock at \$0.83 per share or common stock of our subsidiary, Predictive Diagnostic, Inc, or PDI. The PDI exercise price would be the lowest price per share of the PDI stock in any PDI financing event of no less than \$1,500,000. The number of warrant shares would be determined by dividing \$3,000,000 by the PDI exercise price. PDI common stock issuable pursuant to the warrant would be subject to exchange and underwriter's holding period restrictions, or "lock-ups." We granted piggyback registration rights with respect to the shares issuable upon exercise of the warrant, with respect to any registration filing by us, other than a filing pursuant to Form S-4 or Form S-8.

## Item 14. Principal Accountant Fees and Services

On April 8, 2005, Deloitte & Touche, LLP notified the Company that it would decline to stand for re-election as the Company's independent registered public accounting firm after completion of the audit of the Company's consolidated financial statements included in the Company's Form 10-K for the year ended December 31, 2004. The client-auditor relationship between the Company and Deloitte & Touche, LLP ceased on April 15, 2005. Deloitte & Touche, LLP, has audited the Company's consolidated financial statements since 1999.

The following table sets forth the aggregate fees billed by Deloitte & Touche, LLP, for audit services rendered in connection with the consolidated financial statements and reports for 2004 and 2003, and for other services rendered during 2004 and 2003 on behalf of the Company and its subsidiaries, as well as all out-of-pocket costs incurred in connection with these services, which have been billed to the Company:

	2003		2004	
	Amount	% of Total	Amount	% of Total
Audit fees	\$ 143,000	76%	\$ 155,000	78%
Audit-related fees	25,000	13%	25,000	13%
Tax fees	21,000	11%	18,000	9%
All other fees:	-	-	-	-
<b>Total fees</b>	<b>\$ 189,000</b>		<b>\$ 198,000</b>	

Audit fees consists of fees billed for professional services rendered for the audit of the Company's consolidated financial statements and review of the interim condensed consolidated financial statements included in quarterly reports and services that are normally provided by Deloitte & Touche, LLP, in connection with statutory and regulatory filings or engagements, and attest services, except those not required by statute or regulation.

Audit-related fees consist of fees for assurance and related services that are reasonably related to the performance of the audit or review of the Company's financial statements (described above). These services include accounting consultations in connection with SEC filings other than quarterly and annual regulatory filings, audit of the company's 401(k) plan and services provided related to government grants and contracts.

Tax fees consist of fees for professional services for tax compliance, tax advice and tax planning. These fees related to the preparation and review of federal, state and municipality tax returns and tax consultations regarding taxability of stock options, employee benefits and the stock awards plan.

All other fees consist of fees for all other services.

### Policy on Pre-Approval by Audit Committee of Services Performed by Independent Registered Public Accounting Firm

The policy of the audit committee is to pre-approve all audit and permissible non-audit services to be performed by the Company's independent registered public accounting firm. These services may include audit services, audit-related services, tax services and other services.



## Exhibit Index

Exhibit Number	Exhibit Title or Description
31.3	Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/15d-15(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.4	Certification of the Chief Financial Officer pursuant to Rule 13a-14(a)/15d-15(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

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#### [PART III](#)

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[Item 11. Executive Compensation](#)

[Summary Compensation Table](#)

[Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters](#)

[Item 13. Certain Relationships and Related Transactions](#)

[Item 14. Principal Accountant Fees and Services](#)

[Signatures](#)

[Exhibit Index](#)

**Certification of Principal Executive Officer Pursuant to  
Exchange Act Rule 13a-14(a)/15d-14(a)  
As Adopted Pursuant to Section 302 of The Sarbanes-Oxley Act of 2002**

I, Kevin J. Ryan, certify that:

1. I have reviewed this Amendment No. 1 to the annual report on Form 10-K of Large Scale Biology Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - c) disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and

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

Date: May 2, 2005

/s/ KEVIN J. RYAN

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Kevin J. Ryan

*President and Chief Executive Officer*

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## QuickLinks

### [Exhibit 31.3](#)

[Certification of Principal Executive Officer Pursuant to Exchange Act Rule 13a-14\(a\)/15d-14\(a\) As Adopted Pursuant to Section 302 of The Sarbanes-Oxley Act of 2002](#)

**Certification of Principal Financial Officer Pursuant to  
Exchange Act Rule 13a-14(a)/15d-14(a)  
As Adopted Pursuant to Section 302 of The Sarbanes-Oxley Act of 2002**

I, Ronald J. Artale, certify that:

1. I have reviewed this Amendment No. 1 to the annual report on Form 10-K of Large Scale Biology Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - c) disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and

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

/s/ RONALD J. ARTALE

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Date: May 2, 2005

Ronald J. Artale  
*Senior Vice President, Chief Operating  
Officer and Chief Financial Officer*

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## QuickLinks

### [Exhibit 31.4](#)

[Certification of Principal Financial Officer Pursuant to Exchange Act Rule 13a-14\(a\)/15d-14\(a\) As Adopted Pursuant to Section 302 of The Sarbanes-Oxley Act of 2002](#)