

IR BIOSCIENCES HOLDINGS INC
Form DEF 14A
May 09, 2008

SCHEDULE 14A
(Rule 14a-101)

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934

Filed by the Registrant
Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, For Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- Definitive Proxy Statement
- Definitive Additional Materials
Soliciting Material Pursuant to Rule 14a-11(c) or Rule 14a-12

IR BIOSCIENCES HOLDINGS, INC.
(Name Of Registrant As Specified In Its Charter)

(Name Of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

(1) Title of each class of securities to which transaction applies:

N/A

(2) Aggregate number of securities to which transaction applies:

N/A

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which filing fee is calculated and state how it was determined):

N/A

(4) Proposed maximum aggregate value of transaction:

N/A

(5) Total fee paid:

N/A

Fee paid previously with preliminary materials:

Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the form or schedule and the date of its filing.

(1) Amount Previously Paid:

(2) Form, Schedule or Registration Statement no.:

(3) Filing Party:

(4) Date Filed:

Table of Contents

IR BIOSCIENCES HOLDINGS, INC.

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

To the Stockholders of IR BioSciences Holdings, Inc.:

You are cordially invited to attend the 2008 Annual Meeting of Stockholders (the "Annual Meeting") of IR BioSciences Holdings, Inc, a Delaware corporation ("we," "us," "our," or the "Company"), to be held at the Villagio Inn, located at The Vintage Estates, 6841 Washington Street, Yountville, California, 94599, on June 25, 2008 at 9:00 a.m., Pacific Daylight Time.

The Annual Meeting of the Company is being held for the following purposes:

1. To elect six directors to serve on the Board of Directors until the 2009 Annual Meeting of Stockholders;
2. To approve an amendment to our Certificate of Incorporation, as amended, to increase the number of authorized shares of Common Stock from 250,000,000 to 450,000,000;
3. In the event that number 2 above is approved, to approve an amendment to our 2003 Stock Option, Deferred Stock and Restricted Stock Plan (the "Plan") to increase the number of shares of our Common Stock reserved and available for issuance under the Plan from 20,000,000 to 60,000,000;
4. To approve an amendment to the IR BioSciences Holdings, Inc.'s Certification of Incorporation, as amended, (i) to provide for a recapitalization in which the issued and outstanding shares of our Common Stock will be reverse split in a ratio of one-for-ten at any time prior to March 31, 2009, if at all, with the timing thereof to be determined by the Board of Directors in its sole discretion and (ii) to reduce the number of authorized shares of Common Stock to 100,000,000.;
5. To ratify the appointment of RBSM LLP as the Company's independent public accountants for the fiscal year ending December 31, 2008; and,
6. To transact such other business as may properly come before the meeting.

The Board of Directors recommends a vote "for" each of the nominees and "for" each proposal listed above.

The Board of Directors has fixed the close of business on April 28, 2008 as the record date (the "Record Date") for determining those stockholders who will be entitled to vote at the Annual Meeting.

The Company's Annual Report to Stockholders for the year ended December 31, 2007 is enclosed with this notice. The following proxy statement and enclosed proxy card is being sent to each stockholder as of the Record Date. You are cordially invited to attend the Annual Meeting, but if you do not expect to attend, or if you plan to attend, but desire the proxy holders to vote your shares, please date and sign your proxy card and return it in the enclosed postage paid envelope. The giving of this proxy card will not affect your right to vote in person in the event you find it convenient to attend. Please return the proxy card promptly to avoid the expense of additional proxy solicitation.

By Order of the Board of Directors,

/s/ Michael K. Wilhelm
Michael K. Wilhelm
President and Chief Executive Officer

Scottsdale, Arizona

Dated: May 9, 2008

To be mailed to Stockholders on or about May 13, 2008.

Table of Contents

WHETHER OR NOT YOU EXPECT TO ATTEND THE ANNUAL MEETING, YOU ARE REQUESTED TO COMPLETE, SIGN, DATE AND MAIL THE ENCLOSED PROXY, WHICH IS SOLICITED BY AND ON BEHALF OF THE BOARD OF DIRECTORS, SO THAT YOUR SHARES MAY BE REPRESENTED AT THE MEETING. A POSTAGE-PAID ENVELOPE IS PROVIDED FOR MAILING IN THE UNITED STATES. THE GIVING OF SUCH PROXY WILL NOT AFFECT YOUR RIGHTS TO REVOKE SUCH PROXY OR TO VOTE IN PERSON SHOULD YOU LATER DECIDE TO ATTEND THIS MEETING.

Table of Contents

TABLE OF CONTENTS

	Page
<u>ABOUT THE MEETING</u>	1
<u>Who may vote?</u>	1
<u>Who can attend the meeting?</u>	1
<u>What constitutes a quorum?</u>	1
<u>How do I vote?</u>	2
<u>Can I change my vote after I return my proxy card?</u>	2
<u>What are the Board's recommendations?</u>	2
<u>What vote is required to approve each item?</u>	3
<u>Who pays for the preparation of the proxy?</u>	4
<u>Delivery of proxy materials to households</u>	4
<u>Can I see a list of the Stockholders entitled to vote?</u>	4
<u>What should I have received to enable me to vote?</u>	4
<u>Interest of Executive Officers and Directors</u>	4
<u>PROPOSALS TO OUR STOCKHOLDERS</u>	4
<u>General</u>	5
<u>Vote Required and Recommendation</u>	5
<u>How are directors compensated?</u>	5
<u>Are our employees paid additional compensation for service as directors?</u>	5
<u>How often did the Board meet during 2007?</u>	6
<u>What committees has the Board established?</u>	6
<u>PROPOSAL NO.1 - ELECTION OF DIRECTORS</u>	5
<u>Director Nominees for Election for a One Year Term Expiring at the 2009 Annual Meeting</u>	6
<u>MANAGEMENT</u>	7
<u>EXECUTIVE COMPENSATION</u>	8
<u>Summary Compensation Table</u>	8
<u>Outstanding Equity Awards at Fiscal-Year as of December 31, 2007</u>	12
<u>Director Compensation</u>	13
<u>LONG TERM INCENTIVES</u>	13
<u>Stock Options and Restricted Stock</u>	13
<u>Stock Incentive Plans</u>	13
<u>Equity Compensation Plan Information</u>	15
<u>SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS</u>	16
<u>CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE</u>	21
<u>STOCK PERFORMANCE GRAPH</u>	21
<u>PROPOSAL NO. 2 - APPROVAL OF AN AMENDMENT TO OUR CERTIFICATE OF INCORPORATION TO INCREASE THE NUMBER OF AUTHORIZED SHARES OF COMMON STOCK</u>	22
<u>PROPOSAL NO. 3 – APPROVAL OF AN AMENDMENT TO OUR 2003 STOCK OPTION, DEFERRED STOCK AND RESTRICTED STOCK PLAN (THE “PLAN”) TO INCREASE THE NUMBER OF SHARES OF OUR COMMON STOCK RESERVED AND AVAILABLE FOR ISSUANCE UNDER THE PLAN</u>	24
<u>PROPOSAL NO. 4 - APPROVAL TO AMEND THE CERTIFICATE OF INCORPORATION, AS AMENDED, TO PROVIDE FOR A RECAPITALIZATION IN WHICH THE ISSUED AND OUTSTANDING SHARES OF OUR COMMON STOCK ARE TO BE REVERSE SPLIT AT A RATIO</u>	26

OF ONE-FOR-TEN AT ANY TIME PRIOR TO MARCH 31, 2009, IF AT ALL, WITH THE TIMING THEREOF TO BE DETERMINED BY THE BOARD OF DIRECTORS IN ITS SOLE DISCRETION AND TO DECREASE THE NUMBER OF AUTHORIZED SHARES OF OUR COMMON STOCK TO 100,000,000

PROPOSAL NO. 5 - RATIFICATION OF THE APPOINTMENT OF RBSM LLP AS INDEPENDENT OUTSIDE ACCOUNTANT 33

AMENDED AND RESTATED BYLAWS 34

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE 34

SHAREHOLDER PROPOSALS 34

TRANSACTION OF OTHER BUSINESS 35

Table of Contents

IR BIOSCIENCES HOLDINGS, INC.

PROXY STATEMENT

For Annual Meeting to be Held
June 25, 2008 at 9:00 a.m. Pacific Daylight Time

This proxy statement is delivered to you by IR BioSciences Holdings, Inc. ("we," "us," "our," or the "Company"), a Delaware corporation, in connection with the Annual Meeting of Stockholders of the Company to be held on June 25, 2008 at 9:00 a.m. Pacific Daylight Time at the Villagio Inn, located at The Vintage Estates, 6841 Washington Street, Yountville, California, 94599 (the "Annual Meeting"). The approximate mailing date for this proxy statement and the enclosed proxy is May 13, 2008.

The purpose of the Annual Meeting is to seek stockholder approval of five proposals: (i) electing six directors to the Board of Directors; (ii) to approve an amendment to our Certificate of Incorporation, as amended, to increase the number of authorized shares of Common Stock from 250,000,000 to 450,000,000; (iii) to approve an amendment to our 2003 Stock Option, Deferred Stock and Restricted Stock Plan (the "Plan") to increase the number of shares of our Common Stock reserved and available for issuance under the Plan from 20,000,000 to 60,000,000; (iv) to approve an amendment to the Company's Certificate of Incorporation, as amended, providing for a recapitalization in which the issued and outstanding shares of our Common Stock will be reverse split in a ratio of one-for-ten at any time prior to March 31, 2009, if at all, with the timing thereof to be determined by the Board of Directors in its sole discretion, and to decrease the number of authorized shares of Common Stock to 100,000,000; and, (v) to ratify the appointment of RBSM LLP, as the Company's independent registered public accounting firm for the year ending December 31, 2008.

Who may vote?

Holders of common stock of record at the close of business on the Record Date will be entitled to vote at the Annual Meeting. There were 116,017,539 shares of common stock outstanding as of the Record Date. Only Stockholders of record at the close of business on the record date, April 28, 2008, are entitled to receive notice of the annual meeting and to vote the shares that they held on that date at the meeting, or any postponement or adjournment of the meeting. Each outstanding share of Common Stock entitles its holder to cast one vote on each matter to be voted.

Who can attend the meeting?

All Stockholders as of the record date, or their duly appointed proxies, may attend the meeting. Please note that if you hold shares in "street name," that is through a broker or other nominee, you will need to bring a copy of the brokerage statement reflecting your stock ownership as of the record date.

What constitutes a quorum?

The presence at the meeting, in person or by proxy, of the holders of a majority of the outstanding shares of our Common Stock on the record date will constitute a quorum. As of the record date, there were 116,017,539 shares of our Common Stock issued and outstanding.

If you hold shares beneficially in street name and do not provide your broker with voting instructions, your shares may constitute "broker non-votes." Generally, broker non-votes occur on a matter when a broker is not permitted to vote on that matter without instructions from the beneficial owner and instructions are not given. In tabulating the voting result for any particular proposal, shares that constitute broker non-votes are not considered entitled to vote on that proposal. Thus, broker non-votes will not affect the outcome of any matter being voted on at the meeting, assuming

that a quorum is obtained. However, shares represented by such “broker non-votes” will be counted in determining whether there is a quorum. A properly executed proxy marked “Abstain” with respect to any such matter will not be voted, although it will be counted for purposes of determining whether there is a quorum.

If less than a majority of the outstanding shares of Common Stock entitled to vote are represented at the meeting, a majority of the votes present (either in person or by proxy) at the meeting may adjourn the meeting to another date, time or place, and notice need not be given of the new date, time or place if the new date, time or place is announced at the meeting before an adjournment is taken.

Table of Contents

How do I vote?

Registered Shareholders

- If you complete and properly sign the accompanying proxy card, and return it to us, it will be voted as you direct. If no direction is given, the shares represented by the proxy will be voted (i) for the election of the nominees for director named herein; (ii) for approving an amendment to our Certificate of Incorporation, as amended, to increase the number of authorized shares of Common Stock from 250,000,000 to 450,000,000; (iii) in the event that (ii) above is approved, for approving an amendment to our 2003 Stock Option, Deferred Stock and Restricted Stock Plan (the "Plan") to increase the number of shares of our Common Stock reserved and available for issuance under the Plan from 20,000,000 to 60,000,000; (iv) for approving an amendment to the Company's Certificate of Incorporation, as amended, providing for a recapitalization in which the issued and outstanding shares of our Common Stock will be reverse split in a ratio of one-for-ten at any time prior to March 31, 2009, if at all, with the timing thereof to be determined by the Board of Directors in its sole discretion, and decreasing the number of authorized shares of Common Stock to 100,000,000; and, (v) for ratifying the appointment of RBSM LLP, as the Company's independent registered public accounting firm for the year ending December 31, 2008.
- If you wish to vote at the meeting, you may deliver your completed proxy card in person or you may vote by ballot in person at the annual meeting.

"Street Name" Shareholders

- If you complete and properly sign the accompanying proxy card, and return it to us, it will be voted as you direct. If no direction is given, the shares represented by the proxy will be voted (i) for the election of the nominees for director named herein; (ii) for approving an amendment to our Certificate of Incorporation, as amended, to increase the number of authorized shares of Common Stock from 250,000,000 to 450,000,000; (iii) in the event that (ii) above is approved, for an amendment to our 2003 Stock Option, Deferred Stock and Restricted Stock Plan (the "Plan") to increase the number of shares of our Common Stock reserved and available for issuance under the Plan from 20,000,000 to 60,000,000; (iv) for approving an amendment to the Company's Certificate of Incorporation, as amended, providing for a recapitalization in which the issued and outstanding shares of our Common Stock will be reverse split in a ratio of one-for-ten at any time prior to March 31, 2009, if at all, with the timing thereof to be determined by the Board of Directors in its sole discretion, and decreasing the number of authorized shares of Common Stock to 100,000,000; and, (v) for ratifying the appointment of RBSM LLP, as the Company's independent registered public accounting firm for the year ending December 31, 2008.
- If you wish to vote at the meeting, you will need to obtain a proxy from the institution that holds your shares.

Can I change my vote after I return my proxy card?

Yes. Any proxy given may be revoked at any time prior to its exercise by notifying the Corporate Secretary of the Company in writing of such revocation, by duly executing and delivering another proxy bearing a later date, or by attending and voting in person at the Annual Meeting. The powers of the proxy holders will be suspended with respect to your shares if you attend the meeting in person and so request, although attendance at the meeting will not by itself revoke a previously granted proxy. The Company's principal executive office is located at 8767 E. Via De Ventura, Suite 190, Scottsdale, Arizona 85258.

What are the Board's recommendations?

Unless you give other instructions on your proxy card, the persons named as proxy holders on the proxy card will vote in accordance with the recommendations of the Board of Directors. The Board's recommendations are provided together with a description of each proposal in this proxy statement. In summary, the Board recommends a vote:

- for election of the nominated slate of directors (see page 5);
- for approving an amendment to our Certificate of Incorporation, as amended, to increase the number of authorized shares of Common Stock from 250,000,000 to 450,000,000 (see page 22);
- for an amendment to our 2003 Stock Option, Deferred Stock and Restricted Stock Plan (the "Plan") to increase the number of shares of our Common Stock reserved and available for issuance under the Plan from 20,000,000 to 60,000,000 (see page 24);
- for approval of the amendment to our Certificate of Incorporation, as amended, to provide for a recapitalization in which the issued and outstanding shares of our Common Stock will be reverse split in a ratio of one-for-ten at any time prior to March 31, 2009, if at all, with the timing thereof to be determined by the Board of Directors in its sole discretion, and to decrease the number of authorized shares of Common Stock to 100,000,000 (see page 26); and,
- for ratifying the appointment of RBSM LLP as our independent public accountants for the year ending December 31, 2008 (see page 33).

Table of Contents

What vote is required to approve each item?

Election of Directors. The nominees for election to the Board of Directors, who receive the greatest number of votes cast for the election of directors by the shares present at the annual meeting, in person or by proxy, shall be elected directors. Stockholders do not have the right to cumulate their votes for directors. In the election of directors, an abstention or broker non-vote will have no effect on the outcome.

Approval of an Amendment to Our Certificate of Incorporation, as amended, to Increase the Number of Authorized Shares of Common Stock. The proposal to amend our Certificate of Incorporation, as amended, to increase the number of authorized shares of Common Stock will be approved upon the affirmative vote of a majority of shares of Common Stock issued and outstanding entitled to vote on the proposal. Under Delaware law, abstentions and broker non-votes will have the same effect as a vote against the proposed amendment to the Certificate of Incorporation, as amended.

Approval of an Amendment to Our 2003 Stock Option, Deferred Stock and Restricted Stock Plan to Increase the Number of Shares of our Common Stock Reserved and Available for issuance under the Plan. The proposal to approve an amendment to our Plan to increase the number of shares of our Common Stock reserved and available for issuance under the Plan will be approved upon the affirmative vote of a majority of shares of Common Stock issued and outstanding, present at the annual meeting, in person or by proxy, and entitled to vote on the proposal. With the amendment of our Plan, an abstention or broker non-vote will have the same effect as a vote against the Plan Amendment. This proposal is conditioned upon and may become effective only in the event that the proposal to amend our Certificate of Incorporation, as amended, to increase the number of authorized shares of Common Stock, is approved.

Approval of an Amendment to Our Certificate of Incorporation, as amended, providing for a recapitalization in which the issued and outstanding shares of our Common Stock will be reverse split in a ratio of one-for-ten at any time prior to March 31, 2009, if at all, with the timing thereof to be determined by the Board of Directors in its sole discretion and decreasing the number of authorized shares of our Common Stock to 100,000,000. The proposal to approve the amendment to our Certificate of Incorporation, as amended, to effect a reverse stock split of Common Stock and decrease the number of authorized shares of our Common Stock, requires the affirmative vote of a majority of the shares of Common Stock issued and outstanding entitled to vote on the proposal. Under Delaware law, abstentions and broker non-votes will have the same effect as a vote against the proposed amendment to the Certificate of Incorporation, as amended. This proposal is not conditioned upon approval of but may be approved independent of the proposal to amend our Certificate of Incorporation, as amended, to increase the number of authorized shares of our Common Stock from 250,000,000 to 450,000,000. However, if the proposal to amend our Certificate of Incorporation, as amended, to increase the number of authorized shares of our Common Stock from 250,000,000 to 450,000,000 is approved, it will be filed with the Delaware Secretary of State prior to this proposal to amend our Certificate of Incorporation, as amended, to reverse split the stock and to decrease the number of authorized shares of our Common Stock.

Ratifying the Appointment of RBSM LLP. The proposal to ratify the appointment of RBSM LLP as our independent public accountants for the year ending December 31, 2008 will be adopted upon the affirmative vote of the majority of shares voting on the proposal. Abstentions and broker non-votes will have no effect on the outcome.

UNLESS OTHERWISE DIRECTED IN THE ACCOMPANYING PROXY, THE SHARES REPRESENTED BY YOUR EXECUTED PROXY WILL BE VOTED "FOR" THE APPROVAL OF THE PROPOSALS SET FORTH IN THIS PROXY STATEMENT.

Table of Contents

Who pays for the preparation of this proxy?

The cost of this solicitation of proxies will be borne by the Company. Solicitations will be made by mail. In addition, the officers and other regularly engaged employees of the Company may, in a limited number of instances, solicit proxies personally or by telephone. Our representatives will not receive any compensation for soliciting proxies other than their regular salaries or consulting fees. We may request banks, brokers and other custodians, nominees and fiduciaries to forward copies of the proxy material to the beneficial owners of our Common Stock and to request authority for the execution of proxies, and we may reimburse such persons for their expenses incurred in connection with these activities.

Delivery of proxy materials to households

Only one copy of the Company's Annual Report for the fiscal year ended December 31, 2007 and Proxy Statement will be delivered to an address where two or more stockholders reside unless the Company has received contrary instructions from a stockholder at such address. A separate proxy card will be delivered to each stockholder at such shared address.

If you are a stockholder who lives at a shared address and you would like additional copies of the Company's Annual Report for the fiscal year ended December 31, 2007, this Proxy Statement, or any future annual reports or proxy statements, contact the Corporate Secretary, Michelle Laroche, at (480) 922-3926 or 8767 E. Via De Ventura, Suite 190, Scottsdale, Arizona 85258, and the Company will promptly mail you copies.

Can I see a list of the Stockholders entitled to vote?

Any stockholder may look at the complete list of the Stockholders that are entitled to vote at the annual meeting so long as it is for a purpose germane to the annual meeting. The list will be available in these circumstances, during normal business hours, at our offices located at 8767 E. Via De Ventura, Suite 190, Scottsdale, AZ 85258, for a period of ten days prior to the annual meeting and at the annual meeting itself.

What should I have received to enable me to vote?

Your package from us should contain this proxy statement and a proxy card. This package is being mailed on or about May 13, 2008.

Interest of Executive Officers and Directors

None of the Company's executive officers or directors have any interest in any of the matters to be acted upon at the Annual Meeting, except, that, with respect to each director, to the extent that a director is named as a nominee for election to the Board of Directors, and in that their ownership in the Company may be diluted by the issuance of additional shares if the authorized capital is increased and/or the one-for ten reverse stock split occurs.

Table of Contents

PROPOSALS TO OUR STOCKHOLDERS

PROPOSAL NO. 1

ELECTION OF DIRECTORS

General

The Company's Board of Directors is elected for a one-year term and thereafter until their successors are duly elected and qualified or until their death, resignation or removal. Directors are elected annually at the Annual Meeting. The Company's Bylaws provide for a Board of Directors with a range of between two and nine members. The Company currently has six members on its Board of Directors.

The first proposal for consideration at the annual meeting is the election of a new Board composed of the six persons set forth below. If elected, each of these directors will hold office until the 2009 annual meeting of Stockholders or until his earlier resignation or removal.

- Lance K. Gordon, Ph.D.
- Robert J. Hariri, M.D., Ph.D.
 - Hal N. Siegel, Ph.D.
- Theodore E. Staahl, M.D.
 - Michael K. Wilhelm
- Jerome B. Zeldis, M.D., Ph.D.

We expect that a majority of the Common Stock will be voted in favor of the six nominees named above. All director nominees are currently serving as directors, and there are no other directors continuing to serve in office. Each nominee has agreed to be named in this proxy statement and to serve as a director if elected. For biographical information regarding the nominees, see "Director Nominees for Election for a One Year Term Expiring at the 2009 Annual Meeting" on page 6 of this proxy statement.

Vote Required and Recommendation

The nominees for election to the Board of Directors, who receive the greatest number of votes cast for the election of directors by the shares present, in person or by proxy, will be elected directors. Stockholders do not have the right to cumulate their votes for directors. In the election of directors, an abstention or broker non-vote will have no effect on the outcome

The Board of Directors recommends a vote FOR election of each of the director nominees.

How are directors compensated?

Our policy has been to pay no cash compensation to directors who are our employees or affiliates for their service as directors.

Outside directors receive for service as a member of the Company's Board of Directors, a grant of a non-qualified stock option to purchase shares of common stock under the Company's 2003 Stock Option, Deferred Stock and Restricted Stock Plan. Furthermore, outside directors are eligible to receive monetary and/or equity compensation, in the event they perform additional functions and achieve milestones, as agreed. Outside directors are also reimbursed for all out-of-pocket expenses incurred in the performance of their duties to us, including attendance at Board

meetings.

Are our employees paid additional compensation for services as directors?

No. We do, however, reimburse them for travel and other related expenses.

5

Table of Contents

How often did the Board meet during 2007?

The Board met two (2) times during 2007. All of our incumbent Board members attended 100% of the total meetings of the Board and any Board committees on which they served during 2007. The Company does not have a policy requiring its directors to attend the Annual Meeting of Stockholders.

What committees has the Board established?

The Board has established an Executive Committee. Currently we have no Compensation and Audit Committees. We do not maintain a standing nominating committee or other committee performing similar functions. The function of determining executive compensation, selecting and engaging our independent auditors, reviewing our accounting and reporting principles and practices, reviewing of our financial statements for each interim period and nominating directors are all carried out by the entire Board of Directors. Our Bylaws, however, provide a procedure for you to recommend candidates for directors at a Stockholders meeting. For more information, see page 34 under "Shareholder Proposals." Michael K. Wilhelm and Theodore E. Staahl, M.D. serve on the Executive Committee. The Company intends to charter Audit and Compensation committees in the near future.

Director Nominees for Election for a One Year Term Expiring at the 2009 Annual Meeting

Name	Age	Year First Appointed	Director	Position
Lance K. Gordon, Ph.D.	60	2007	Director	Director
Robert J. Hariri, M.D., Ph.D.	48	2007	Director	Director
Hal N. Siegel, Ph.D.	53	2006	Vice-President and Chief Scientific Officer and Director	Vice-President and Chief Scientific Officer and Director
Theodore E. Staahl, M.D.	63	2003	Director	Director
Michael K. Wilhelm	41	2003	President, Chief Executive Officer and Director	President, Chief Executive Officer and Director
Jerome B. Zeldis, M.D., Ph.D.	58	2007	Director	Director

The persons named below will be nominated for election as directors of the Company at this Annual Meeting to serve until the next Annual Meeting and until their successors are elected and have qualified. Each of the nominees is currently a director of the Company. The Board of Directors, as a whole, identifies director nominees, evaluating candidates based on the requirements set forth in the Company's Bylaws and applicable regulatory requirements.

The following are biographical summaries for the Company's nominees for election as directors:

Lance K. Gordon, Ph.D., Director. Dr. Gordon has served on our Board of Directors since May 2007. He currently serves as President and CEO of ImmunoBiologics Corporation, a formative biotechnology company that he founded in 2007. Prior to his work at ImmunoBiologics Corporation Dr. Gordon served as President, Chief Executive Officer and as a Director of VaxGen, Inc. from 2001 to 2007. Prior to joining Vaxgen, Dr. Gordon was Executive Director of North America for Acambis plc. and a member of the Company's Board of Directors from 1999 to 2001. Previously, he served as President and CEO of OraVax, Inc. from 1990 to 1999, prior to its acquisition by Peptide Therapeutics to form Acambis. Before joining OraVax, he served as the CEO of North American Vaccine from 1988 to 1990, prior to its acquisition by Baxter International. Dr. Gordon received his Ph.D. in Biomedical Science, Immunology from the University of Connecticut and completed his postdoctoral fellowship as an NIH fellow at the Division of Allergy and

Immunology, Washington University Medical School, St. Louis. He currently serves on the DHHS National Vaccines Advisory Committee and on the Board of Trustees of the Sabin Vaccine Institute.

Robert J. Hariri, M.D., Ph.D., Director. Dr. Hariri, M.D. has served on our Board of Directors since April 2007. Dr. Hariri has been CEO of Celgene Cellular Therapeutics, a division of Celgene, since 2005. Previously, he had been President of the division from 2002 to 2005. The division focuses on human stem and biomaterial solutions for a range of clinical indications. From 1998 to 2002, prior to joining Celgene Cellular Therapeutics, Dr. Hariri was Founder, Chairman and Chief Scientific Officer for Anthrogenesis Corp./LIFEBANK, Inc., a New Jersey-based privately held biomedical technology and service corporation involved in umbilical cord blood banking and its supporting technology platform. From 1987 to 1994, he was Co-founder, Vice Chairman and Chief Scientific Officer of Neurodynamics, a privately held medical device and technology corporation. Dr. Hariri has held academic positions at Cornell University Medical College Cornell University Graduate School of Medical Sciences. He has also played a prominent medical role at Cornell University Medical College, The New York Hospital-Cornell Medical Center and The Jamaica Hospital-Cornell Trauma Center. While at Cornell, he was the Director of The Center for Trauma Research. He received his Medical Degree and Ph.D. from Cornell University and was awarded a Bachelor of Arts Degree from Columbia College.

Table of Contents

Hal N. Siegel, Ph.D., Vice President and Chief Scientific Officer.

Dr. Siegel has served on the Board of Directors since June 2006. Dr. Siegel was appointed as Chief Scientific Officer and Vice President in January 2008 after serving as our Senior Director of Product Development and Regulatory Affairs since June 2006. Prior to joining the company, Dr. Siegel served as Acting General Manager and Vice President Regulatory and Scientific Affairs for Zila Biotechnology, Inc. from 2004 to October 2006. In addition, since 2001, Dr. Siegel has provided consulting services for Siegel Consultancy LLC, which has been providing strategic and tactical expertise to life science companies, helping them meet FDA requirements from pre-clinical studies through the regulatory submission process and into the post-approval marketplace. Dr. Siegel holds degrees from Rensselaer Polytechnic Institute and SUNY Buffalo, where he earned his Ph.D., in Biochemical Pharmacology.

Theodore E. Staahl, M.D., Director. Dr. Staahl has served on our Board of Directors since April 2003. Dr. Staahl is employed at the Cosmetic, Plastic and Reconstructive Surgery Center, a company which he founded in 1978. Dr. Staahl's professional training was received at the University of Illinois and the University of Wisconsin and is board certified by the American Board of Facial, Plastic and Reconstruction Surgeons, the Board of Cosmetic Surgeons and the American Board of Head and Neck Surgeons. Dr. Staahl has presented papers at national and international meetings on hair transplant, rhinoplasty and cleft lip deformities.

Michael K. Wilhelm, President, Chief Executive Officer And Director. Michael K. Wilhelm has been our President and Chief Executive Officer and a member of our Board of Directors since July 2003. Mr. Wilhelm has been President and Chief Executive Officer and a member of the Board of Directors since co-founding ImmuneRegen BioSciences, Inc., our wholly-owned subsidiary, in December 2002. Mr. Wilhelm has served as Managing Director of Foresight Capital Corporation since July 1996, a company he founded to consult and assist early-stage companies in furthering their growth and development. Mr. Wilhelm retains the title of Managing Director of Foresight Capital Corporation, but the company has had limited and insignificant business operations since December 2002.

Jerome B. Zeldis, M.D., Ph.D., Director. Dr. Zeldis has served on our Board of Directors since November 2007. Dr. Zeldis currently serves as Chief Medical Officer of Celgene Corporation, Warren N.J., a position he has held since 1997. He is also currently, and since 2003, Professor of Clinical Medicine at the Robert Wood Johnson Medical School in New Brunswick, N.J. Prior to working at Celgene, Dr. Zeldis worked at Sandoz Research Institute from 1994 to 1995 and Janssen Research Institute from 1995 to 1997 in both clinical research and medical development. He has been a Board member of a few start-up biotechnology companies and is currently on the Board of the Semorex Corporation, the N.J. Chapter of the Arthritis Foundation, and the Castleman's Disease Organization.

MANAGEMENT

The following table sets forth the names and positions of all of our current directors and executive officers.

Name	Age	Position
Michael K. Wilhelm	41	President, Chief Executive Officer and Director
John N. Fermanis	54	Chief Financial Officer
Hal N. Siegel, Ph.D.	53	Vice-President and Chief Scientific Officer
Lance K. Gordon, Ph.D.	60	Director
Robert J. Hariri, M.D., Ph.D.	48	Director
Theodore E. Staahl, M.D.	63	Director
Jerome B. Zeldis, M.D., Ph.D.	58	Director

Biographical information about our directors and officers except Mr. John N. Fermanis are included under the caption, "Director Nominees for Election for a One Year Term Expiring at the 2009 Annual Meeting".

John N. Fermanis, Chief Financial Officer. Mr. Fermanis has served as our Chief Financial Officer since December 2004. From May 2001 to October 2004 Mr. Fermanis served as Chief Financial Officer of AMPS Wireless Data, Inc., a privately held Arizona corporation which he co-founded in 1998. From 1997 to 2001, Mr. Fermanis held the position of Treasury Manager for Peter Piper, Inc., a national restaurant chain headquartered in Scottsdale, Arizona. Mr. Fermanis has over 18 years of financial management experience with both the American Express Corporation and Citigroup in New York City. Mr. Fermanis holds a Bachelor of Arts degree from the S.U.N.Y. at Stony Brook and attended Pace University's Graduate School of Management in New York City.

There are no family relationships among the directors and executive officers.

Table of Contents

EXECUTIVE COMPENSATION

Summary Compensation Table

The following table sets forth information concerning the compensation for the two fiscal years ended December 31, 2007 and 2006, of our principal executive officer, our two most highly compensated executive officers other than our principal executive officer whose annual compensation exceeded \$100,000, and up to two additional individuals for whom disclosure would have been made in this table but for the fact that the individual was not serving as an executive officer of our company at December 31, 2007, if any (collectively, the "Named Executive Officers").

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option Awards (\$)(2)	All Other Compensation (\$)(3)	Total (\$)
Michael K. Wilhelm							
President, CEO and Director	2007	\$ 315,414	\$ 82,239	—\$	883,544	\$ 15,820	\$ 1,297,017
	2006	\$ 286,317	\$ 41,278 (1)	—\$	735,731	\$ 5,955	\$ 1,069,281
John N. Fermanis							
Chief Financial Officer	2007	\$ 112,000	\$ 5,800	—\$	230,051	\$ 5,994	\$ 353,845
	2006	\$ 98,000	\$ 17,596 (1)	—	—	—\$	115,596
Hal N. Siegel							
Vice-President and Chief Scientific Officer	2007	\$ 201,884	—	—\$	263,147	—\$	465,031
	2006	\$ 42,308	—	—\$	32,071	\$ 95,574	\$ 169,953

(1) The amounts shown are the amounts of compensation cost recognized by us in fiscal year 2006 related to the issuance of cash and common stock purchase warrants as bonus in fiscal year 2006 and prior fiscal years.

Named Executive Officer	Issue Date	Price	Underlying Warrants	Compensation Cost
Michael K. Wilhelm	July 14, 2006	\$ 0.250	300,000	\$ 41,278
John N. Fermanis	July 14, 2006	\$ 0.158	62,500	\$ 9,596

(2) The amounts shown are the amounts of compensation cost recognized by us in fiscal year 2007 related to the grants of stock options in fiscal year 2007 and prior fiscal years, as described in Statement of Financial Accounting Standards No. 123R. For a discussion of valuation assumptions, see Note A to our 2007 Consolidated Financial Statements included in our annual report on Form 10-K for the year ended December 31, 2007; excluding any assumptions for forfeitures. The table below shows how much of the overall amount of the compensation cost is attributable to each award.

Table of Contents

Named Executive Officer	Grant Date	Price (\$)	Underlying Options	Compensation Cost
Michael K. Wilhelm	August 1, 2007	\$ 0.166	2,000,000	\$ 330,975
	August 1, 2007	\$ 0.195	500,000	\$ 81,112
	September 13, 2006	\$ 0.220	3,500,000	\$ 469,247
	July 14, 2006	\$ 0.231	1,896,970	\$ 266,484
	August 10, 2005	\$ 0.330	103,030	\$ 27,513
	May 20, 2005	\$ 0.440	150,000	\$ 55,399
Hal N. Siegel	August 1, 2007	\$ 0.166	1,100,000	\$ 182,035
	August 1, 2007	\$ 0.195	500,000	\$ 81,112
	October 23, 2006	\$ 0.200	200,000	\$ 32,071
John N. Fermanis	August 1, 2007	\$ 0.166	900,000	\$ 148,939
	August 1, 2007	\$ 0.195	500,000	\$ 81,112

(3)The amounts shown are the amounts of compensation cost recognized by us in fiscal year 2006 related to the issuance of Common Stock purchase warrants in fiscal year 2006 and prior fiscal years.

Named Executive Officer	Issue Date	Price (\$)	Underlying Warrants	Compensation Cost
Hal N. Siegel	September 30, 2006	\$ 1.000	2,500	\$ 156
	June 30, 2006	\$ 1.000	2,500	\$ 213
	March 31, 2006	\$ 0.125	9,000	\$ 2,267
	December 31, 2005	\$ 0.125	9,000	\$ 2,242
	September 30, 2005	\$ 0.125	9,000	\$ 3,003
	June 30, 2005	\$ 0.125	9,000	\$ 2,242
	March 31, 2005	\$ 0.125	900	\$ 352
	March 12, 2005	\$ 0.125	3,000	\$ 1,173

Automobile Leases

In October 2006, the Company signed a three-year lease agreement for an automobile for the Company's Chief Executive Officer. The rental cost per month is approximately \$1,318. The total cost recognized by us in fiscal year 2007 related to the automobile lease was \$15,820.

In December 2006, the Company signed a two-year lease agreement for an automobile for the Company's Chief Financial Officer. The rental cost per month is approximately \$499. The total cost recognized by us in fiscal year 2007 related to the automobile lease was \$5,994.

Table of Contents

Option Grants in Fiscal Year 2007

In August 2007, we granted options to purchase 2,500,000 shares of Common Stock to our Chief Executive Officer, Michael K. Wilhelm. The options vest 100% after thirty days of continued employment.

In July 2006, we granted options to purchase 1,896,970 shares of Common Stock to our Chief Executive Officer, Michael K. Wilhelm. The options vest 50% after ninety days of continued employment and the balance in equal monthly installments for 12 months thereafter.

In September 2006, we issued options to purchase 3,500,000 shares of Common Stock to our Chief Executive Officer, Michael K. Wilhelm. The options vest 50% after thirty days of continued employment with the balance in equal monthly installments for 12 months thereafter.

In August 2007, we granted options to purchase 1,600,000 shares of Common Stock to our Vice-President, Chief Scientific Officer and Director, Hal N. Siegel. The options vest 100% after thirty days of continued employment.

In October 2006, we issued options to purchase 200,000 shares of Common Stock to our Senior Director, Product Development and Regulatory Affairs and Director, Hal N. Siegel.

In August 2007, we granted options to purchase 1,400,000 shares of Common Stock to our Chief Financial Officer, John N. Fermanis. The options vest 100% after thirty days of continued employment.

As of December 31, 2007, total unrecognized stock-based compensation expense related to stock options was \$12,420. During the year ended December 31, 2006 we charged \$264,274 to operations related to recognized stock-based compensation expense for employee stock options.

Employment Agreements

President and Chief Executive Officer:

On August 10, 2005, we entered into a new employment agreement with our President and Chief Executive Officer, Michael K. Wilhelm. The employment agreement calls for a salary at the rate of \$275,000 per annum. The salary will be subject to adjustment of at least 10% per year at the end of each year. We also agreed to defend and indemnify, to the fullest extent permitted by our certificate of incorporation and bylaws and the Delaware General Corporation Law, Mr. Wilhelm and hold him harmless against any liability that he incurs within the scope of his employment under the agreement. The agreement also provides for the following various bonus incentives:

- i) A target incentive bonus in cash and/or stock if we consummate a transaction with any unaffiliated third party such as an equity or debt financing, acquisition, merger, strategic partnership or other similar transaction.
- ii) A one time grant of an option to purchase 2,000,000 shares of our Common Stock at an exercise price equal to the fair market value per share on the date option is granted.

In connection with Mr. Wilhelm's new employment agreement, we also entered into a change of control agreement and a severance agreement with him on August 10, 2005. Under the change of control agreement, Mr. Wilhelm shall be entitled to a continuation of his base salary for a period of 18 months following an involuntary termination, which means, at any time within that period which is one-year from the change of control date (including such date), the termination of the employment of Mr. Wilhelm (i) by us without cause or (ii) due to constructive termination, as such terms are defined in the change of control agreement. Further, in the event of an involuntary termination, the

agreement provides that the registrant shall pay Mr. Wilhelm a lump sum amount in cash, equal to the sum of (i) any unpaid incentive compensation which has been allocated or awarded to Mr. Wilhelm for a completed fiscal year or other measuring period preceding the date of involuntary termination under any annual or long-term incentive plan and which, as of the date of involuntary termination, is contingent only upon the continued employment of Mr. Wilhelm to a subsequent date, and (ii) a pro rata portion to the date of involuntary termination of the aggregate value of all contingent incentive compensation awards to Mr. Wilhelm for all then uncompleted periods under any such plan. Further, 100% of the unvested portion of each outstanding stock option granted to Mr. Wilhelm shall be accelerated so that they become immediately exercisable upon the date of involuntary termination.

Table of Contents

Under the severance agreement, Mr. Wilhelm shall be entitled to a continuation of his base salary for a period of 18 months following an involuntary termination, which means the termination of the employment of Mr. Wilhelm (i) by us without cause or (ii) due to constructive termination, as such terms are defined in the severance agreement. Further, in the event of an involuntary termination, the agreement provides that the registrant shall pay Mr. Wilhelm an amount equal to the amount of executive incentive pay (bonus) that he would have received for the year in which the involuntary termination occurred had he met one hundred percent (100%) of the target for such incentive pay. Also, under this agreement, 100% of the unvested portion of each outstanding stock option granted to Mr. Wilhelm shall be accelerated so that they become immediately exercisable upon the date of involuntary termination.

Chief Financial Officer:

Pursuant to our employment agreement with John Fermanis, our Chief Financial Officer, dated February 15, 2005, we paid a salary of \$60,000 until we completed a financing of \$500,000 or more. This occurred on March 4, 2005 when we completed a Tender Offer for warrants totaling \$1,190,857 net of fees. From March 4, 2005, until December 31, 2005, we paid an annual salary of \$85,000. Thereafter, we paid an annual salary of \$98,000 for the second year ending December 31, 2006 and an annual salary of \$112,000 for the third year ending December 31, 2007. Mr. Fermanis' salary is payable in regular installments in accordance with our customary payroll practices. Mr. Fermanis also received 100,000 shares of our Common Stock, which were earned at the rate of 1/12 or 8,333 per month beginning January 2005. We charged to operations the market value of these shares as of the first day of each month. For the twelve months ended December 31, 2006, we charged \$41,416 to operations for the issuance of 100,000 shares to Mr. Fermanis.

Pursuant to terms of our employment agreement with Mr. Fermanis, our Chief Financial Officer, dated January 1, 2008, we pay an annual base salary of \$130,000 for the first year and \$140,000 for the second year. Mr. Fermanis will also be eligible for discretionary bonuses under the Company's stock option plan during his employment. The employment agreement has a term of two years, subject to early termination provisions. The Company may terminate the employment agreement at any time for cause, as defined in the employment agreement, and upon 15 days written notice without cause. Mr. Fermanis may terminate the employment agreement for any reason with 30 days written notice. Upon termination of Mr. Fermanis' employment by the Company without cause or constructive termination, as defined in the employment agreement, the Company agrees to pay to Mr. Fermanis the remainder of his salary for the year or six months salary, whichever is greater, and any accrued vacation. Pursuant to the terms of the employment agreement, Mr. Fermanis may not compete against the Company and he may not solicit the Company's customers during the term of the employment agreement and for a period of three years following the termination of his employment agreement. Mr. Fermanis also may not disclose any confidential information during or within three years after his employment.

Vice President and Chief Scientific Officer:

Pursuant to our employment agreement with Hal N. Siegel, our Vice President and Chief Scientific Officer, dated October 23, 2006, we will pay an annual base salary of \$200,000 for the first year and \$210,000 for the second year. Mr. Siegel will also be eligible for discretionary bonuses under our stock option plan during his employment. In addition, Mr. Siegel received options with a term of five years to purchase 200,000 shares of our Common Stock. The options are exercisable at \$0.20 per share. The employment agreement has a term of two years, subject to early termination provisions. Upon termination of Mr. Siegel's employment by us without cause or constructive termination, as defined in the agreement, we agree to pay to Mr. Siegel the remainder of his salary for the year or six months salary, whichever is greater, and any accrued vacation.

In addition, we entered into a change of control agreement with Hal Siegel. Pursuant to the terms of the change of control agreement, we agree to pay Mr. Siegel his salary for a period of 18 months from the date of an involuntary

termination, payable in accordance with our compensation practice. Involuntary termination is defined as the termination of Mr. Siegel's employment by us without cause or due to constructive termination at any time within one-year of a change of control event, as defined in the agreement.

Table of Contents

Outstanding Equity Awards at Fiscal Year-End as of December 31, 2007

As of the year ended December 31, 2007, the following Named Executive Officers had the following outstanding equity awards:

Name	Number of Securities Underlying Unexercised Options		Option Awards Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)		Option Exercise Price (\$)	Option Expiration Date
	Exercisable #	Unexercisable #	Unexercised	Unexercised		
Michael K. Wilhelm President, CEO and Director	1,896,970	—	—	—	\$ 0.231	7/14/2011
	454,545	—	—	—	\$ 0.220	9/13/2011
	3,045,455	—	—	—	\$ 0.220	9/13/2011
	2,000,000	—	—	—	\$ 0.166	7/31/2017
	500,000	—	—	—	\$ 0.195	7/31/2017
John N. Fermanis Chief Financial Officer	900,000	—	—	—	\$ 0.166	7/31/2017
	500,000	—	—	—	\$ 0.195	7/31/2017
Hal N. Siegel Vice-President and Chief Scientific Officer	200,000	—	—	—	\$ 0.200	10/23/2011
	1,100,000	—	—	—	\$ 0.166	7/31/2017
	500,000	—	—	—	\$ 0.195	7/31/2017

Director Compensation

Name	Fees Earned or Paid		Non-Equity Incentive Plan Compensation		Nonqualified Deferred Compensation Earnings		All Other Compensation		Total (\$)
	Cash (\$)	Stock Awards (\$)	Option Awards (\$)	Compensation (\$)	Compensation (\$)	Compensation (\$)	Compensation (\$)		
Lance K. Gordon, Ph.D.	\$ —	—	—165,457	—	—	—	—	—\$ 165,457	
Robert J. Hariri, M.D., Ph.D.	—	—	—330,974	—	—	—	—	— 330,974	
Theodore E. Staahl, M.D.	—	—	— 41,372	—	—	—	—	— 41,372	
Jerome B. Zeldis, M.D., Ph.D.	—	—	—	—	—	—	—	—	
Mark L. Witten, Ph.D. (1)	\$ 5,000	--	--	--	--	--	--	-- \$ 5,000	

(1)

Mark L. Witten, Ph.D. resigned as a member of the Board of Directors on May 18, 2006. On December 16, 2002 we entered into a consulting agreement with Mark Witten, our chief research scientist and director. The consulting agreement was entered into on a month-to-month basis. Under the terms of this agreement, Dr. Witten agreed to place at our disposal his judgment and expertise in the area of acute lung injury. In consideration for these services, we agreed to pay Dr. Witten a non-refundable fee of \$5,000 per month. This contract was terminated effective February 1, 2006.

Table of Contents

Compensation of Directors

Standard Arrangements. Directors currently receive no cash compensation from IR BioSciences Holdings, Inc. for their services as members of the Board or for attendance at committee meetings. Members of the Board are reimbursed for some expenses in connection with attendance at Board and committee meetings.

Other Arrangements.

Subject to approval by our Board of Directors, we may from time to time issue options and/or warrants to executives and directors for fulfilling certain performance goals.

LONG TERM INCENTIVES

Stock Options and Restricted Stock

Executive officers, together with our other employees, are eligible to receive grants of awards under our 2003 Stock Option, Deferred Stock and Restricted Stock Plan. These awards may be in the form of stock options and/or restricted stock grants. The number of shares underlying options or shares, together with all other terms of the options and shares, are established by the Board of Directors.

Stock Incentive Plans

2003 Stock Option, Deferred Stock and Restricted Stock Plan

Nature of the Plan. We adopted our 2003 Stock Option, Deferred Stock and Restricted Stock Plan (the "Plan") which authorizes the Board of Directors in accordance with the terms of the Plan, among other things, to grant incentive stock options as defined by Section 422(b) in the Internal Revenue Code, nonstatutory stock options and awards of restricted stock and deferred stock and to sell shares of our Common Stock pursuant to the exercise of such stock options. On June 28, 2006, our Stockholders voted to approve an amendment to our 2003 Stock Option, Deferred Stock and Restricted Stock Plan to increase the number of shares of our Common Stock reserved and available for issuance under the plan from 3,600,000 to 20,000,000. Grants of Awards representing 19,924,972 shares of our Common Stock have been made under the Plan with exercise prices ranging from \$0.066 to \$0.44. As of April 25, 2008 we had a balance of 75,028 shares of our Common Stock reserved and available for issuance under the Plan.

Purpose. The primary purpose of the Plan is to attract and retain the best available personnel in order to promote the success of our business and to facilitate the ownership of our stock by employees and others who provide services to us.

Administration. The Plan is administered by our Board of Directors, as the Board of Directors may be composed from time to time. Notwithstanding the foregoing, the Board of Directors may at any time, or from time to time, appoint a committee of at least two members of the Board of Directors, and delegate to the committee the authority of the Board of Directors to administer the Plan. Upon such appointment and delegation, the committee shall have all the powers, privileges and duties of the Board of Directors, and shall be substituted for the Board of Directors, in the administration of the Plan, subject to certain limitations.

Eligibility. Under the Plan, options to purchase shares and the award of shares of Common Stock may be granted to employees, officers, directors or consultants of the Company.

Table of Contents

Terms of Options. The term of each option granted under the Plan shall be contained in a stock option agreement between the optionee and the Company and such terms shall be determined by the Board of Directors consistent with the provisions of the Plan, including the following:

(a) Purchase Price. The purchase price of the Common Stock subject to each incentive stock option shall not be less than the fair market value of our Common Stock at the time of the grant (as set forth in the Plan), or in the case of the grant of an incentive stock option to a principal stockholder, not less than 110% of fair market value of our Common Stock at the time such option is granted. The purchase price of the Common Stock subject to each Non-Qualified stock option shall be determined at the time such option is granted, but in no case less than 85% of the fair market value of such Common Stock at the time such option is granted;

(b) Vesting. The dates on which each option (or portion thereof) shall be exercisable and the conditions precedent to such exercise, if any, shall be fixed by the Board of Directors, in its discretion, at the time such option is granted. The Board of Directors may, in its discretion, declare that the restrictions applicable to any Restricted Stock or Deferred Stock awards under the Plan shall be deemed fully or partially vested upon a change of control transaction as described in the Plan;

(c) Expiration. The expiration of each option shall be fixed by the Board of Directors, in its discretion, at the time such option is granted; however, unless otherwise determined by the Board of Directors at the time such option is granted, an option shall be exercisable for up to ten years after the date on which it was granted, or five years for grants to a 10% shareholder;

(d) Transferability. No Stock Option shall be transferable by the optionee otherwise than by will or by the laws of descent and distribution. Incentive Stock Options shall be exercisable, during the optionee's lifetime, only by the optionee;

(e) Option Adjustments. In the event of any merger, reorganization, consolidation, recapitalization, stock dividend, stock split, reverse stock split or other change in corporate structure affecting our Common Stock, an appropriate substitution or adjustment shall be made in (i) the aggregate number of shares reserved for issuance under the Plan, and (ii) the kind, number and option price of shares subject to outstanding Awards granted under the Plan as may be determined by the Administrator, in its sole discretion, provided that the number of shares subject to any Award shall always be a whole number;

(f) Termination, Modification And Amendment. The Plan (but not options previously granted under the Plan) shall terminate ten years from the date of its adoption by the Board of Directors, and no option or shares shall be granted after termination of the Plan. Subject to certain restrictions, the Plan may at any time be terminated and from time to time be modified or amended by the affirmative vote of the holders of a majority of the outstanding shares of the capital stock of the Company present, or represented, and entitled to vote at a meeting duly held in accordance with the applicable laws of the State of Delaware.

Table of Contents

Equity Compensation Plan Information

The following table summarizes information regarding shares issuable as of March 31, 2008, under our equity compensation plans, including the number of shares of common stock subject to options, restricted stock units, deferred shares and other rights granted to employees, consultants and members of our Board of Directors; the weighted-average exercise price of outstanding options; and the number of shares remaining available for future award grants under these plans. Additional information regarding our equity compensation plans can be found in footnote 7 of our consolidated financial statements included in our Annual Report on Form 10-K for fiscal year ended December 31, 2007.

Equity compensation plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Plans approved by security holders (1)	16,348,465	\$ 0.193	75,028
Plans not approved by security holders	63,212	\$ 24.84	-
Total	16,411,677	\$ 0.288	75,028

(a) Amounts represent outstanding options, restricted stock units and deferred (“phantom”) shares as of March 31, 2008.

(b) Not included in the calculation of weighted average exercise price are 3,576,507 restricted stock units.

(c) Amounts represent shares remaining available for future awards under our 2003 Stock Option, Deferred Stock and Restricted Stock Plan.

(1) Consists of awards granted under the 2003 Stock Option, Deferred Stock and Restricted Stock Plan.

Table of Contents

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The following table sets forth certain information relating to the ownership of Common Stock by (i) each person known by us to be the beneficial owner of more than five percent of the outstanding shares of our Common Stock, (ii) each of our directors, (iii) each of our named executive officers, and (iv) all of our executive officers and directors as a group. Unless otherwise indicated, the information relates to these persons, beneficial ownership as of April 25, 2008. Except as may be indicated in the footnotes to the table and subject to applicable community property laws, each person has the sole voting and investment power with respect to the shares owned.

Name of Beneficial Owner (1)	Common Stock Beneficially Owned(2)		Percentage of Common Stock (3)
Michael K. Wilhelm	12,134,671	(4)	9.6%
John N. Fermanis	1,580,000	(5)	1.3%
Hal N. Siegel, Ph.D.	1,956,000	(6)	1.7%
Lance K. Gordon, Ph.D.	1,000,000	(7)	*%
Robert J. Hariri, M.D., Ph.D.	3,210,545	(8)	2.7%
Theodore E. Staahl, M.D.	3,796,261	(9)	3.3%
Jerome B. Zeldis, M.D., Ph.D.	250,000	(10)	*
Mark Witten, Ph.D. 1501 N. Campbell Avenue Room 3352 Tucson, AZ 85724	6,660,778	(11)	5.7%
All executive officers and directors as a group (6 persons)	23,677,477	(12)	17.8%

* Less than 1 percent.

(1) Except as otherwise indicated, the address of each beneficial owner is c/o IR BioSciences Holdings, Inc., 8767 E. Via De Ventura, Suite 190, Scottsdale, Arizona 85258.

(2) Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission. In general, a person who has voting power or investment power with respect to securities is treated as beneficial owner of those securities. Common shares subject to options and warrants currently exercisable or exercisable within 60 days of April 25, 2008 count as outstanding for computing the percentage beneficially owned by the person holding these options or warrants.

(3) Percentages are based on 116,017,539 shares of Common Stock outstanding as of April 25, 2008.

(4) Includes 1,870,141 shares of common stock underlying warrants

Table of Contents

Number of Warrants	Exercise Price (\$)	Expiration Date
448,980	0.125	3/18/09
250,000	0.250	4/13/09
250,000	0.250	4/13/09
75,000	0.250	5/17/09
5,000	2.000	7/22/09
80,000	0.050	7/22/09
1,550	2.000	8/18/09
20,800	0.090	8/18/09
358,000	0.500	10/29/09
80,811	0.300	5/20/10
300,000	0.250	7/14/11
1,870,141		

and 8,150,000 shares of common stock underlying options

Number of Options	Strike Price (\$)	Expiration Date
150,000	0.440	5/19/10
103,030	0.330	8/9/10
1,896,970	0.231	7/13/11
454,545	0.220	9/12/11
3,045,455	0.220	9/12/11
2,000,000	0.166	7/31/17
500,000	0.195	7/31/17
8,150,000		

that are currently exercisable or exercisable within 60 days of April 25, 2008.

Includes 461,602 shares of common stock and 61,000 common stock purchase warrants held by immediate family members that are currently exercisable or exercisable within 60 days of April 25, 2008.

Table of Contents

Number of Warrants	Exercise Price (\$)	Expiration Date
20,000	0.25	7/30/09
20,000	0.125	12/31/08
20,000	0.125	12/31/08
1,000	1.00	12/31/08
61,000		

(5) Includes 80,000 shares of common stock underlying warrants

Number of Warrants	Exercise Price (\$)	Expiration Date
5,000	0.25	5/6/09
12,500	0.308	5/6/10
62,500	0.158	7/14/11
80,000		

and 1,400,000 shares of common stock underlying options

Number of Options	Strike Price (\$)	Expiration Date
900,000	0.166	7/31/17
500,000	0.195	7/31/17
1,400,000		

that are currently exercisable or exercisable within 60 days of April 25, 2008.

(6) Includes 46,000 shares of common stock underlying warrants

Number of Warrants	Exercise Price (\$)	Expiration Date
5,000	0.25	5/6/09
9,000	0.125	6/30/08
9,000	0.125	9/30/08
9,000	0.125	12/31/08
9,000	0.125	3/31/09
2,500	1.00	6/30/09
2,500	1.00	9/30/09
46,000		

and 1,800,000 shares of common stock underlying options

Number of Options	Strike Price (\$)	Expiration Date
200,000	0.20	10/22/11
1,100,000	0.166	7/31/17
500,000	0.195	7/31/17
1,800,000		

Table of Contents

that are currently exercisable or exercisable within 60 days of April 25, 2008.

(7) Includes 1,000,000 shares of common stock underlying options

Number of Options	Strike Price (\$)	Expiration Date
1,000,000	0.166	7/31/17

that are currently exercisable or exercisable within 60 days of April 25, 2008.

(8) Includes 2,000,000 shares of common stock underlying options

Number of Options	Strike Price (\$)	Expiration Date
1,000,000	0.166	7/31/17
1,000,000	0.166	7/31/17
2,000,000		

that are currently exercisable or exercisable within 60 days of April 25, 2008.

Includes 625,000 shares of common stock and 312,500 common stock purchase warrants

Number of Warrants	Exercise Price (\$)	Expiration Date
312,000	0.50	12/6/11

held by The Hariri Family Limited Partnership, a partnership that our director is the administrative manager thereof that are currently exercisable or exercisable within 60 days of April 25, 2008.

(9) Includes 160,000 shares of common stock underlying warrants

Number of Warrants	Exercise Price (\$)	Expiration Date
80,000	0.038	7/1/08
80,000	0.05	7/27/09
160,000		

Table of Contents

and 250,000 shares of common stock underlying options

Number of Options	Strike Price (\$)	Expiration Date
250,000	0.166	7/31/17

that are currently exercisable or exercisable within 60 days of April 25, 2008.

Includes 35,000 common stock purchase warrants issued by third that are currently exercisable or exercisable within 60 days of April 25, 2008.

(10) Includes 250,000 shares of common stock underlying options

Number of Options	Strike Price (\$)	Expiration Date
250,000	0.0663	3/28/18

that are currently exercisable or exercisable within 60 days of April 25, 2008.

(11) Includes 712,000 shares of common stock underlying warrants

Number of Warrants	Exercise Price (\$)	Expiration Date
50,000	0.25	4/13/09
250,000	0.25	4/13/09
362,000	0.50	10/29/09
50,000	0.125	5/6/10
712,000		

that are currently exercisable or exercisable within 60 days of April 25, 2008.

(12) Includes: (i) 2,156,141 shares of common stock underlying warrants; (ii) 14,600,000 shares of common stock underlying stock options; (iii) 461,602 shares of common stock and 61,000 common stock purchase warrants held by immediate family members; and, (iv) 625,000 shares of common stock and 312,500 common stock purchase warrants held by a partnership that a director is the administrative manager that are currently exercisable or exercisable within 60 days of April 25, 2008.

The information as to shares beneficially owned has been individually furnished by our respective directors, named executive officers and other Stockholders, or taken from documents filed with the SEC.

Table of Contents

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

None of the Company's executive officers or directors have any interest in any of the matters to be acted upon at the Annual Meeting, except, that, with respect to each director, to the extent that a director is named as a nominee for election to the Board of Directors, and in that their ownership in the Company may be diluted by the issuance of additional shares if the authorized capital is increased and/or the one-for ten reverse stock split occurs.

Review, Approval Or Ratification Of Transactions With Related Persons

The Company's policies and procedures for reviewing, approving, and ratifying transactions with related persons are overseen by the Board of Directors.

Transactions With Related Persons

Based on information provided by the directors and the executive officers, the Board determined that there were no related person transactions to be reported in this proxy statement.

STOCK PERFORMANCE GRAPH(1)

The following graph compares the cumulative stockholder return through December 31, 2007 on the Company's common stock with the cumulative total return of a broad market index, the NASDAQ Composite Index, and an industry index, the NASDAQ Biotechnology Index. The graph assumes that \$100 was invested on December 31, 2002 and assumes reinvestment of the full amount of all dividends and are calculated as of as of December 31 of each year. The comparisons in this table are required by the applicable SEC regulations and are not intended to forecast or be indicative of possible future performance of IR BioSciences Holdings, Inc.'s common stock. The information presented in the graph was obtained by the Company from outside sources it considers to be reliable but has not been independently verified by the Company.

(1) This Section is not "soliciting material," is not deemed "filed" with the SEC and is not to be incorporated by reference in any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

Table of Contents

PROPOSAL 2

APPROVAL OF AN AMENDMENT TO OUR CERTIFICATE OF INCORPORATION TO
INCREASE THE NUMBER OF AUTHORIZED SHARES OF COMMON STOCK.

Description of Proposed Amendment

On April 19, 2008, the Board of Directors unanimously approved an amendment to the Company's Certificate of Incorporation, as amended, subject to stockholder approval, to increase the number of authorized shares of Common Stock from 250,000,000 to 450,000,000 to be effected upon the filing with the Secretary of State of the State of Delaware the appropriate amendment to our Certificate of Incorporation, as amended (the "Increased Common Stock Amendment"). The full text of the proposed Increased Common Stock Amendment is set out in Appendix A to this Proxy Statement. The text of the proposed Increased Common Stock Amendment is subject to modification to include such changes as may be required by the office of the Secretary of State of Delaware or as our Board of Directors deems necessary and advisable to effect the increase in the number of authorized shares of Common Stock. The Increased Common Stock Amendment does not include a change in the number of authorized shares of Preferred Stock.

The stockholders are being asked to approve the Amendment.

Required Vote

The affirmative vote of a majority of the issued and outstanding shares of Common Stock entitled to vote at the Annual Meeting of Stockholders is required to approve the foregoing proposal. As a result, abstentions and broker non-votes will have the same effect as negative votes. In the absence of instructions to the contrary, proxies covering the common stock will be voted for the amendment.

The Board of Directors recommends a vote FOR the proposal to approve the amendment to the Company's Certificate of Incorporation, as amended,
to increase the number of authorized shares of Common Stock from 250,000,000 to 450,000,000.

If the Stockholders approve this proposal, the Board of Directors will have the authority without any further action on the part of the Stockholders and will file the Increased Common Stock Amendment with the Delaware Secretary of State at any time after the approval of the Increased Common Stock Amendment. The filing with the Delaware Secretary of State will be made prior to any filing of the Reverse Split Amendment as discussed in Proposal No. 4 below. If the proposal is not approved by the stockholders, the Increased Common Amendment will not be filed and the proposal will not be implemented.

Reasons for the Increased Common Stock Amendment

We currently have 250,000,000 shares of Common Stock authorized for issuance. We effected a two-for-one forward split of our Common Stock in April 2004. In connection with the increase in the number of authorized shares of Common Stock, the Board has determined that it is in the best interests of the Company and its stockholders to increase the number of authorized shares of Common Stock from 250,000,000 to 450,000,000. The increase would become effective upon filing the proposed Increased Common Stock Amendment with the Secretary of State of the State of Delaware or such later date as may be set forth in the Certificate of Amendment.

The Board determined to increase the number of authorized shares of Common Stock because it believes that the current number is insufficient for existing and future corporate purposes, and the increase is needed to provide flexibility for issuances of Common Stock to raise additional capital, for strategic business opportunities that may be presented from time to time and to allow additional shares of Common Stock to be reserved and available for issuance under our 2003 Stock Option, Deferred Stock and Restricted Stock Plan. The Company has no plans, agreements, arrangements or understandings to issue any additional shares of common stock at this time.

Shares of Common Stock Issued and Outstanding

The Company is currently authorized to issue a maximum of 250,000,000 shares of Common Stock. As of the Record Date of April 28, 2008, there were approximately 116,017,539 shares of Common Stock issued and outstanding. As of that date, an additional 58,739,637 shares of Common Stock were issuable upon exercise of outstanding stock options and warrants, an additional 75,028 shares were reserved under our stock option plans for future grants of options, 50,695,000 shares are reserved per outstanding contracts and convertible debt obligations. The Increased Common Stock Amendment will not change the number of outstanding shares of Common Stock but will provide the Board with the ability to issue additional shares of Common Stock as it determines to be for proper corporate purposes and in the best interests of the Company.

Table of Contents

The holders of our Common Stock are entitled to one vote per share on all matters submitted to a vote of our stockholders. In addition, such holders are entitled to receive ratably such dividends, if any, as may be declared from time to time by our Board of Directors out of funds legally available therefore. No dividends may be paid on the Common Stock until all accrued but unpaid dividends on the shares of our preferred stock have been paid. In the event of the dissolution, liquidation or winding up of our company, the holders of Common Stock are entitled to share ratably in all assets remaining after payment of all liabilities of our company and the preference amount distributable to the holders of the shares of preferred stock. The holders of Common Stock do not have any subscription, redemption or conversion rights, nor do they have any preemptive or other rights to acquire or subscribe for additional, unissued or treasury shares.

With the exception of the number of authorized shares of Common Stock, the rights and preferences of the shares of Common Stock prior and subsequent to the increased authorized Common Stock will remain the same. After the effectiveness of the Increased Authorized Common Stock Amendment, it is not anticipated that the financial condition of the Company, the percentage ownership of management, the number of the Company's stockholders, or any aspect of the Company's business would materially change solely as a result of the increased number of authorized shares of Common Stock.

The Common Stock is currently registered under Section 12(g) of the Exchange Act, and as a result, the Company is subject to the periodic reporting and other requirements of the Exchange Act. The increased authorized Common Stock will not affect the registration of the Common Stock under the Exchange Act. If the proposed Increased Common Stock Amendment is implemented, our Common Stock will continue to be reported on the OTC Bulletin Board under the symbol "IRBO."

Effects of the Increased Common Stock Amendment

As a result of the increased number of authorized shares of Common Stock, there will be an increase in the total number of authorized shares of Common Stock that the Company may issue including the number of shares of Common Stock unissued and available for future issuance. This will increase the number of shares of available Common Stock for issuance to raise capital for any proper corporate purpose approved by the Board of Directors, including future financing transactions. The issuance in the future of such additional authorized shares may have the effect of diluting the earnings per share and book value per share, as well as the stock ownership and voting rights, of the currently outstanding shares of our common stock. The effective increase in the number of authorized but unissued shares of our Common Stock may be construed as having an anti-takeover effect by permitting the issuance of shares to purchasers who might oppose a hostile takeover bid or oppose any efforts to amend or repeal certain provisions of the our Certificate of Incorporation or our Bylaws. The increased authorized Common Stock is not being proposed in response to any effort of which management of the Company is aware to accumulate shares of Common Stock or obtain control of the Company, nor is it part of a similar plan by management.

Holders of the Common Stock have no preemptive or other subscription rights.

In addition, the increased number of authorized shares of Common Stock will allow additional shares of Common Stock to be reserved and available for issuance under our Plan if Proposal No. 3 is approved by the stockholders for an amendment to our Plan to increase the number of shares of our Common Stock reserved and available for issuance under the Plan from 20,000,000 to 60,000,000.

Appraisal Rights

No appraisal rights are available under Delaware law or under the Company's Certificate of Incorporation, as amended, or By-Laws to any stockholder who dissents from the proposal to approve the Increased Common Stock

Amendment. There may exist other rights or actions under state law for stockholders who are aggrieved by an increase in authorized shares generally. Although the nature and extent of such rights or actions are uncertain and may vary depending upon the facts or circumstances, stockholder challenges to corporate action in general are related to the fiduciary responsibilities of corporate officers and directors and to the fairness of corporate transactions.

Effect on Legal Ability to Pay Dividends

The Increased Common Stock Amendment will have no material impact on the legal ability of the Company to pay dividends.

Table of Contents

PROPOSAL NO. 3

APPROVAL OF AN AMENDMENT TO OUR 2003 STOCK OPTION, DEFERRED STOCK AND RESTRICTED STOCK PLAN (THE "PLAN") TO INCREASE THE NUMBER OF SHARES OF OUR COMMON STOCK RESERVED AND AVAILABLE FOR ISSUANCE UNDER THE PLAN

Note: Proposal No. 3 is conditioned upon and may become effective only in the event that the Increased Common Stock Amendment as set forth in Proposal No. 2 is approved by the Company's stockholders. Your vote on Proposal No. 3 is subject to stockholder approval of Proposal No. 2 and your vote will have no effect unless Proposal No. 2 is approved by the stockholders. In the event Proposal No. 2 is not approved by the stockholders, then Proposal No. 3 cannot be made effective.

Description of Proposed Amendment

On April 19, 2008, the Board of Directors, conditioned upon and subject to approval by the stockholders of the Increased Common Stock Amendment as set forth in Proposal No. 2, unanimously approved an amendment to our 2003 Stock Option, Deferred Stock and Restricted Stock Plan, subject to stockholder approval, to increase the number of shares of Common Stock reserved and available for issuance under the Plan from 20,000,000 to 60,000,000 be effected upon approval by the stockholders (the "Plan Amendment"). The full text of the proposed Plan Amendment is set out in Appendix B to this Proxy Statement. The text of the proposed Amendment is subject to modification to include such changes as our Board of Directors deems necessary and advisable to effect the increase in the number of shares of Common Stock reserved and available for issuance under the Plan.

The stockholders are being asked to approve the Plan Amendment.

Vote Required and Recommendation

The approval of the Plan Amendment to increase the number of shares of our Common Stock reserved and available for issuance under the Plan will be made upon the affirmative vote of the majority of shares voting on the proposal. Abstentions and brokers non-votes will have no effect on the outcome. The Plan Amendment is conditioned upon and subject to approval by the stockholders of the Increased Common Stock Amendment as set forth in Proposal No. 2. In the event that Proposal No. 2 is not approved by the stockholders, then all votes by the stockholders in favor of Proposal No. 3 will not approve the Plan Amendment, and the Plan Amendment will not become effective.

The Board of Directors recommends a vote FOR the proposal to approve the amendment to the Company's Plan to increase the number of shares of Common Stock reserved and available for issuance under the Plan from 20,000,000 to 60,000,000.

If the proposal is not approved by the stockholders, the Plan Amendment will not be effective and the proposal will not be implemented.

Reasons for the Plan Amendment

The purpose of the Plan is to enable us to obtain and retain competent personnel who will contribute to the Company's success by their ability, ingenuity and industry, and to provide incentives to such personnel and members that are linked directly to increases in stockholder value, and will therefore, inure to the benefit of all stockholders of the Company. Eligible recipients of awards under the Plan include employees, directors, consultants and advisors of the Company. Currently, awards consisting of deferred stock, restricted stock and options to purchase shares of Common Stock and issued under the Plan total 19,924,972 shares of Common Stock and there are only 75,028 shares of

Common Stock reserved and available for issuance under the Plan.

The Board determined to increase the number of shares of Common Stock reserved and available for issuance under the Plan because it believes that the current number is insufficient for the purposes of the Plan as stated above. The market for quality personnel is competitive, and the ability to obtain and retain competent personnel is of great importance to our business operations

Table of Contents

Effects of the Plan Amendment

As a result of the Plan Amendment, there will be an increase in the total number of shares of Common Stock reserved for issuance under the Plan. This provides us with the ability to grant more awards than are currently available under the Plan to eligible recipients including employees, directors, consultants and advisors. The issuance in the future of awards under the Plan consisting of deferred stock, restricted stock and options to purchase shares of Common Stock may have the effect of diluting the earnings per share and book value per share, as well as the stock ownership and voting rights, of the currently outstanding shares of our Common Stock. The effective increase in the number of authorized but unissued shares of our Common Stock which may be issued as awards under the Plan may be construed as having an anti-takeover effect by permitting the issuance of shares to purchasers who might oppose a hostile takeover bid or oppose any efforts to amend or repeal certain provisions of the our Certificate of Incorporation or our Bylaws. The increased number of shares of Common Stock reserved and available under the Plan is not being proposed in response to any effort of which management of the Company is aware to accumulate shares of Common Stock or obtain control of the Company, nor is it part of a similar plan by management.

Holders of the Common Stock have no preemptive or other subscription rights.

In addition, with an increase in the number of shares of Common Stock reserved and available for issuance under the Plan, our Board will be able to approve the grant to one of our directors, Jerome B. Zeldis, of a nonstatutory option to purchase 750,000 shares of Common Stock pursuant to provisions of Dr. Zeldis' directorship agreement entered into with the Company on November 1, 2007. The exercise price of such options will be equal to 85% of the fair market value of the Common Stock on the day of the grant with a term of ten years. If the nonstatutory option to Dr. Zeldis was granted today, the theoretical value of the option would be \$48,066.

Appraisal Rights

No appraisal rights are available under Delaware law or under the Company's Certificate of Incorporation, as amended, or By-Laws to any stockholder who dissents from the proposal to approve the Plan Amendment. There may exist other rights or actions under state law for stockholders who are aggrieved by an increase in authorized shares generally. Although the nature and extent of such rights or actions are uncertain and may vary depending upon the facts or circumstances, stockholder challenges to corporate action in general are related to the fiduciary responsibilities of corporate officers and directors and to the fairness of corporate transactions.

Effect on Legal Ability to Pay Dividends

The Plan Amendment will have no material impact on the legal ability of the Company to pay dividends.

Effect of Proposal No. 4

In the event that the Reverse Split Amendment under Proposal No. 4 is approved, proportionate adjustments will be made to the per-share exercise price and the number of shares issuable upon the exercise of all outstanding options, restricted stock awards and restricted stock units entitling the holders to purchase shares of Common Stock as set forth under provisions of the Plan, which will result in approximately the same aggregate price being required to be paid for such options and restricted stock units upon exercise immediately preceding the reverse stock split.

Table of Contents

PROPOSAL NO. 4

APPROVAL TO AMEND THE CERTIFICATE OF INCORPORATION, AS AMENDED, TO PROVIDE FOR A RECAPITALIZATION IN WHICH THE ISSUED AND OUTSTANDING SHARES OF OUR COMMON STOCK ARE TO BE REVERSE SPLIT AT A RATIO OF ONE-FOR-TEN AT ANY TIME PRIOR TO MARCH 31, 2009, IF AT ALL, WITH THE TIMING THEREOF TO BE DETERMINED BY THE BOARD OF DIRECTORS IN ITS SOLE DISCRETION AND TO DECREASE THE NUMBER OF AUTHORIZED SHARES OF OUR COMMON STOCK TO 100,000,000.

Note: Proposal No. 4 is not conditioned upon and may become effective independent of the Increased Common Stock Amendment as set forth in Proposal No. 2. However, in the event that Proposal No. 2 is approved by the stockholders, the Increased Common Stock Amendment will be filed with the Delaware Secretary of State prior to the filing, if at all, of the Reverse Split Amendment.

General

The Board of Directors has approved and is hereby soliciting Stockholder approval of an amendment to the Company's Certificate of Incorporation, as amended (the "Reverse Split Amendment"), to provide for a recapitalization in which the issued and outstanding shares of our Common Stock are to be reverse split at a ratio of one-for-ten prior to March 31, 2009, if at all, with the timing thereof to be determined by our Board of Directors in its sole discretion and to decrease the number of our authorized shares of Common Stock to 100,000,000. The full text of the proposed Reverse Split Amendment is set out in Appendix C to this Proxy Statement. A vote FOR Proposal No. 4 will constitute approval of the Reverse Split Amendment providing for the conversion of each ten (10) shares of Common Stock into one (1) share of Common Stock and will grant the Board of Directors the authority to select the timing (no later than March 31, 2009) of when the Reverse Split Amendment is to become effective, if at all. This means that the number of shares of our Common Stock that you hold after the reverse split will be one-tenth (1/10) of the number of shares held prior to the reverse split. If the Stockholders approve this proposal, the Board of Directors will have the authority, but not the obligation, in its sole discretion, and without further action on the part of the Stockholders, to effect the approved reverse stock split by filing the Reverse Split Amendment with the Delaware Secretary of State at any time after the approval of the Reverse Split Amendment and prior to March 31, 2009. Following approval of the Reverse Split Amendment, the Board of Directors will have the authority to decide, in its sole discretion, whether or not to file the Reverse Split Amendment with the Delaware Secretary of State and make it effective. If the Amendment has not been filed with the Delaware Secretary of State by the close of business on March 31, 2009, the Board of Directors will abandon the Reverse Split Amendment constituting the reverse stock split and the decrease in the number of authorized shares of our Common Stock. The Board of Directors may determine, in its sole discretion, not to file the Reverse Split Amendment and to abandon the reverse stock split without further action by our Stockholders.

Upon approval of the Reverse Split Amendment under Proposal No. 4, the number of authorized shares of the Company's Common Stock will be reduced from 250,000,000 to 100,000,000, if Proposal No. 2 is not approved by the stockholders, and from 450,000,000 to 100,000,000 if Proposal No. 2 is approved by the stockholders and the Increased Common Stock Amendment is filed with the Delaware Secretary of State, but would not change the par value of a share of the Company's Common Stock. Except for any changes as a result of the treatment of fractional shares, each Stockholder will hold the same percentage of Common Stock outstanding immediately after the reverse stock split as such Stockholder held immediately prior to the reverse stock split. The Reverse Split Amendment does not include a change in the number of authorized shares of Preferred Stock.

Background

The Board of Directors believes that the reverse stock split is in the best interests of the Company by reducing the number of shares of Common Stock available on the public market, and thereby proportionately increasing the per share price of the Company's Common Stock. Theoretically, decreasing the number of shares of Common Stock outstanding should not, by itself, affect the marketability of the shares, the type of investor who would be interested in acquiring them, or our reputation in the financial community. In practice, many investors and market makers consider low-priced stocks as unduly speculative in nature and, as a matter of policy, avoid investment and trading in such stocks. The presence of these negative perceptions may be adversely affecting, and may continue to adversely affect, not only the pricing of our Common Stock, but also its trading liquidity. In addition, these perceptions may affect our ability to raise additional capital through the sale of stock or the cost of debt we may incur. Upon approval of and filing of the Reverse Split Amendment with the Delaware Secretary of State, we will have 11,601,754 shares of our Common Stock outstanding as of the date of this proxy statement. With the decrease in the number of authorized shares of our Common Stock to 100,000,000, the reverse split will also make available a substantial number of additional authorized, but unissued shares of Common Stock which we believe will provide increased flexibility in structuring possible future financing, in taking advantage of future business opportunities such as acquisitions, and in meeting corporate needs as they arise, all without the delay and expense of calling a meeting of our Stockholders to authorize an increase in authorized capital. The Company's Common Stock may then be more appealing to institutional investors and institutional funds.

We hope that the decrease in the number of shares outstanding of our Common Stock resulting from the reverse split, and the anticipated increase in the price per share, will encourage greater interest in our Common Stock among members of the financial community. However, the possibility exists that Stockholder liquidity may be adversely affected by the reduced number of shares which would be outstanding if the reverse split is effected, particularly if the price per share of the Common Stock begins a declining trend after the reverse split is effected. Such a decrease in the price per share of the Common Stock will reduce the value of your holdings in the Company as you will have fewer shares as a result of the reverse split.

Table of Contents

The Board of Directors believes that the share price of our Common Stock is a factor in whether our Common Stock meets investing guidelines for certain institutional investors and investment funds. Also, the Board of Directors believes that our Stockholders will benefit from relatively lower trading costs for a higher priced stock. The combination of lower transaction costs and increased interest from institutional investors and investment funds may ultimately improve the trading liquidity of our Common Stock.

We are not aware of any present efforts by anyone to accumulate the Common Stock, and the proposed reverse split is not intended to be an anti-takeover device. The Board of Directors did not seek authority to implement a reverse stock split in anticipation of any future transaction or series of transactions, including any "going private" transaction.

Currently, our Common Stock is listed on the FINRA OTC Bulletin Board under the symbol "IRBO". The OTC Bulletin Board has several continued listing criteria that companies must satisfy in order to remain listed on the exchange. Currently, the Company meets all of the OTC Bulletin Board's continued listing criteria. The OTC Bulletin Board is viewed by most investors as a less desirable and less liquid marketplace. A reverse stock split may give the Company the opportunity to attempt a listing on a higher quality exchange, but there can be no assurance that the reverse split will help the Company achieve this desired result.

If the Stockholders approve Proposal No. 4, the reverse stock split will be effected, if at all, only upon a determination by the Board that the reverse stock split is in the Company's and the Stockholders' best interests at that time. In connection with any determination to effect the reverse stock split, the Board, with the advice of its experts, will set the time for such a reverse split up to March 31, 2009. If the Board of Directors does not implement the reverse stock split prior to March 31, 2009 the authority granted to the Board of Directors to implement the reverse stock split on these terms will terminate. This determination will be made by the Board with the intention to create the greatest marketability for the Company's Common Stock based upon prevailing market conditions at that time.

There can be no assurance that the reverse split will achieve any of the desired results. There also can be no assurance that the price per share of the Common Stock immediately after the reverse split will increase proportionately with the reverse split, or that any increase will be sustained for any period of time. A decrease in the price per share of the Common Stock will reduce the value of your holdings in the Company as you will have fewer shares as a result of the reverse split.

The Board reserves its right to elect not to proceed, and abandon, the reverse stock split if it determines, in its sole discretion, that this proposal is no longer in the best interests of the Company's stockholders.

Purpose of the Reverse Stock Split

The purpose of the reverse stock split is to increase the per share trading price of the Company's Common Stock. The Board intends to effect the proposed reverse stock split only if it believes that a decrease in the number of shares outstanding is likely to improve the trading price for the Company's Common Stock, and only if the implementation of a reverse stock split is determined by the Board to be in the best interest of the Company and its stockholders. The Board may exercise its discretion not to implement a reverse stock split.

The Company believes that a number of institutional investors and investment funds are reluctant to invest, and in some cases may be prohibited from investing, in lower-priced stocks and that brokerage firms are reluctant to recommend lower-priced stocks to their clients. By effecting a reverse stock split, the Company believes it may be able to raise its Common Stock price to a level where the Company's Common Stock could be viewed more favorably by potential investors.

Other investors may also be dissuaded from purchasing lower-priced stocks because the brokerage commissions, as a percentage of the total transaction, tend to be higher for lower-priced stocks. A higher stock price after a reverse stock split could alleviate this concern.

The combination of lower transaction costs and increased interest from institutional investors and investment funds could have the effect of improving the trading liquidity of the Company's Common Stock.

Table of Contents

Certain Risk Factors Associated with the Reverse Stock Split

- While the Board of Directors believes that a higher stock price may help generate investor interest, there can be no assurance that the reverse stock split will result in any particular price for the Company's Common Stock or result in a per-share price that will attract institutional investors or investment funds or that such share price will satisfy the investing guidelines of institutional investors or investment funds. As a result, the trading liquidity of the Company's Common Stock may not necessarily improve.
- There can be no assurance that the market price per new share of the Company's Common Stock after a reverse stock split will remain unchanged or increase in proportion to the reduction in the number of shares of the Company's Common Stock outstanding before the reverse stock split. For example, based on the closing price of the Company's Common Stock on April 25, 2008 of \$0.09 per share, if the reverse stock split was implemented and approved for a reverse stock split ratio of 1-for-10, there can be no assurance that the post-split market price of the Company's Common Stock would be \$0.90 or greater. Accordingly, the total market capitalization of the Company's Common Stock, and the value of your holdings of our Common Stock, after the reverse stock split may be lower than the total market capitalization before the reverse stock split. Moreover, in the future, the market price of the Company's Common Stock following the reverse stock split may not exceed or remain higher than the market price prior to the reverse stock split.
- If the reverse stock split is effected and the market price of the Company's Common Stock declines, the percentage decline may be greater than would occur in the absence of a reverse stock split. The value of your holdings of our Common Stock would also decline in the same manner. The market price of the Company's Common Stock will, however, also be based on performance and other factors, which are unrelated to the number of shares outstanding. Furthermore, the liquidity of the Company's Common Stock could be adversely affected by the reduced number of shares that would be outstanding after the reverse stock split.

Impact of the Proposed Reverse Stock Split if Implemented

If approved and effected, the reverse stock split will be realized simultaneously and in the same ratio for all of the Company's Common Stock. The reverse stock split will affect all issued and outstanding shares of the Company's Common Stock and outstanding rights to acquire the Company's Common Stock uniformly. It will not affect any Stockholder's percentage ownership interest in the Company, except to the extent that the reverse stock split would result in any holder of the Company's Common Stock receiving whole shares instead of fractional shares. As described below, holders of the Company's Common Stock otherwise entitled to fractional shares as a result of the reverse stock split will receive whole shares in lieu of such fractional shares. In addition, the reverse stock split will not affect any Stockholder's proportionate voting power (subject to the treatment of fractional shares). After the reverse stock split, the number of authorized shares of Common Stock will be 100,000,000 shares and the number of unissued shares of Common Stock will be approximately 88,398,246 shares. Although the Company does not have any current plans, proposals or arrangements (written or otherwise) to issue any additional shares other than pursuant to equity plans and the potential conversion of secured convertible notes currently in existence and previously publicly announced transactions, the decrease in the number of authorized shares of our Common Stock will nevertheless make available a sufficient number of additional authorized but unissued shares of Common Stock for structuring possible future financings, in taking advantage of future business opportunities such as acquisitions and in meeting corporate needs as they arise.

The principal effects of the reverse stock split will be that:

- Each 10 shares of the Company's Common Stock owned by a Stockholder will be combined into one new share of Common Stock;

- the number of shares of Common Stock issued and outstanding will be reduced from approximately 116,017,539 shares to approximately 11,601,754 shares;
 - based upon the reverse stock split, proportionate adjustments will be made to the per-share exercise price and the number of shares issuable upon the exercise of all outstanding options, restricted stock awards and restricted stock units entitling the holders to purchase shares of Common Stock as set forth under provisions of our 2003 Stock Option, Deferred Stock and Restricted Stock Plan, which will result in approximately the same aggregate price being required to be paid for such options and restricted stock units upon exercise immediately preceding the reverse stock split;
- the number of shares reserved for issuance under the Company's 2003 Stock Option, Deferred Stock and Restricted Stock Plan will be reduced proportionately based upon the reverse stock split ratio selected by the Board of Directors; and,
- based upon the reverse stock split, proportionate adjustments will be made to the per-share exercise price and the number of shares issuable upon the exercise of all outstanding warrants to purchase shares of our Common Stock, which will result in approximately the same aggregate price being required to be paid for shares of our Common Stock upon exercise of such warrants immediately preceding the reverse stock split.

Table of Contents

In addition, if approved and implemented, the reverse stock split may result in some Stockholders owning “odd lots” of less than 100 shares of Common Stock. Odd lot shares may be more difficult to sell, and brokerage commissions and other costs of transactions in odd lots are generally somewhat higher than the costs of transactions in “round lots” of even multiples of 100 shares. The Board believes, however, that these potential effects are substantially outweighed by the benefits of the reverse stock split.

The Company will continue to have 10,000,000 authorized shares of Preferred Stock of which no shares are issued or outstanding. Authorized but unissued shares will be available for issuance, and we may issue such shares in the future. The exercise of stock options and warrants that have been granted or may be granted in the future will increase the number of issued and outstanding shares of our Common Stock. In addition, if we were to issue any additional shares in connection with any future financing, acquisition or other type of transaction, the ownership interest of holders of our Common Stock will be diluted.

Effective Date

The proposed reverse stock split of the Common Stock would become effective as of 11:59 p.m., Eastern Time, (the “Effective Date”) on the date of filing the Reverse Split Amendment with the office of the Delaware Secretary of State. Except as explained below with respect to fractional shares, on the Effective Date, each ten (10) shares of the Company’s Common Stock issued and outstanding immediately prior thereto will be converted, automatically and without any action on the part of the stockholders, into one (1) share of the Company’s Common Stock.

After the Effective Date, the Company’s Common Stock will have new committee on uniform securities identification procedures (“CUSIP”) numbers, which is a number used to identify the Company’s equity securities, and stock certificates with the older CUSIP numbers will need to be exchanged for stock certificates with the new CUSIP numbers by following the procedures described below.

After the Effective Date, the Company will continue to be subject to periodic reporting and other requirements of the Securities Exchange Act of 1934, as amended. The Company’s Common Stock will continue to be reported on the FINRA OTC Bulletin Board under the symbol “IRBO”, although FINRA will add the letter “D” to the end of the trading symbol for a period of 20 trading days after the Effective Date to indicate that the reverse stock split has occurred.

Board Discretion to Implement the Reverse Stock Split

If the reverse stock split is approved by the Company’s Stockholders, it will be effected, if at all, only upon a determination by the Board of Directors that a reverse stock split is in the best interests of the Company and the stockholders. The Board’s determination as to whether the reverse stock split will be effected will be based upon certain factors, including existing and expected marketability and liquidity of the Company’s Common Stock, prevailing market conditions and the likely effect on the market price of the Company’s Common Stock. If the Board determines to effect the reverse stock split, the Board, along with its experts, will consider various factors in selecting the ratio including the overall market conditions at the time and the recent trading history of the Common Stock. The Board of Directors is not required to implement the reverse stock split. If the Board of Directors does not implement the reverse stock split prior to March 31, 2009 the authority granted to the Board of Directors to implement the reverse stock split on these terms will terminate.

Fractional Shares

Stockholders will not receive fractional shares of Common Stock from the conversion of the one-for-ten ratio following the reverse stock split. Instead, stockholders will receive a full share of Common Stock for any fractional share interests created by the reverse split.

Effect on Registered and Beneficial Holders of Common Stock

Upon the reverse stock split, the Company intends to treat shares held by stockholders in “street name,” through a bank, broker or other nominee, in the same manner as registered stockholders whose shares are registered in their names. Banks, brokers or other nominees will be instructed to effect the reverse stock split for their beneficial holders holding the Company’s Common Stock in “street name”.

Effect on Registered “Book-Entry” Holders of Common Stock

Certain of the Company’s registered holders of Common Stock may hold some or all of their shares electronically in book-entry form with the Company’s transfer agent. These stockholders do not have stock certificates evidencing their ownership of the Company’s Common Stock. They are, however, provided with a statement reflecting the number of shares registered in their accounts.

If a Stockholder holds registered shares in book-entry form with the transfer agent, no action needs to be taken to receive post-reverse stock split shares. If a stockholder is entitled to post-reverse stock split shares, a transaction statement will automatically be sent to the stockholder’s address of record indicating the number of shares of Common Stock held following the reverse stock split.

Table of Contents

Effect on Certificated Shares

Stockholders holding shares of the Company's Common Stock in certificate form will be sent a transmittal letter by Stalt, Inc., our transfer agent, as soon as practicable after the Effective Date of the Reverse Split Amendment. The letter of transmittal will contain instructions on how a stockholder should surrender his or her certificate(s) representing shares of the Company's Common Stock ("Old Certificates") to the transfer agent in exchange for certificates representing the appropriate number of whole shares of Common Stock following the reverse split ("New Certificates"). No New Certificates will be issued to a stockholder until such stockholder has surrendered all Old Certificates, together with a properly completed and executed letter of transmittal, to the transfer agent. No Stockholder will be required to pay a transfer or other fee to exchange his, her or its certificates.

Stockholders will then receive a New Certificate(s) representing the number of whole shares of Common Stock to which they are entitled as a result of the reverse stock split. Until surrendered, the Company will deem outstanding Old Certificates held by stockholders to be canceled and only to represent the number of whole shares of Common Stock to which these Stockholders are entitled following the reverse stock split.

Any Old Certificates submitted for exchange, whether because of a sale, transfer or other disposition of stock, will automatically be exchanged for New Certificates.

If an Old Certificate has a restrictive legend on the back of the Old Certificate(s), the New Certificate will be issued with the same restrictive legends that are on the back of the Old Certificate(s).

STOCKHOLDERS SHOULD NOT DESTROY ANY STOCK CERTIFICATE(S) AND SHOULD NOT SUBMIT ANY STOCK CERTIFICATE(S) UNTIL REQUESTED TO DO SO.

Accounting Matters

The reverse stock split will not affect the par value of a share of the Company's Common Stock. As a result, as of the Effective Date of the reverse stock split, the stated capital attributable to Common Stock on the Company's balance sheet will be reduced proportionately based on the reverse stock split ratio (including a retroactive adjustment of prior periods), and the additional paid-in capital account will be credited with the amount by which the stated capital is reduced. Reported per-share net income or loss and net book value of the Company's Common Stock will be restated because there will be fewer shares of Common Stock outstanding.

Potential Anti-Takeover Effect

The proportion of unissued authorized shares to issued shares could, under certain circumstances, have an anti-takeover effect. For example, the issuance of a large block of Common Stock could dilute the stock ownership of a person seeking to effect a change in the composition of the Board of Directors or contemplating a tender offer or other transaction for the combination of the Company with another company. However, the reverse stock split proposal is not being proposed in response to any effort of which the Company is aware to accumulate shares of Common stock or obtain control of the Company, nor is it part of a plan by management to recommend to the Board and stockholders a series of amendments to the Company's Certificate of Incorporation, as amended. Other than the proposal for the Reverse Stock Amendment and the Increased Common Stock Amendment set forth in Proposal No. 2 above, the Board of Directors does not currently contemplate recommending the adoption of any other amendments to the Company's Certificate of Incorporation, as amended, that could be construed to reduce or interfere with the ability of third parties to take over or change the control of the Company.

Reasons for the Decrease in the Number of Authorized Shares of Our Common Stock

We currently have 250,000,000 shares of Common Stock authorized for issuance. In the event that Proposal No. 2 is approved by the shareholders, the authorized number of shares of our Common Stock will be increased to 450,000,000. In the event that Proposal No. 4 is approved by the shareholders effecting a one-for-ten reverse stock split the number of outstanding shares of our Common Stock will be 11,601,754. As such, we do not believe that it is in the best interests of the Company to maintain the authorized number of shares of our Common Stock at 250,000,000 or 450,000,000 and therefore the Reverse Split Amendment includes a decrease in the number of authorized shares of our Common Stock to 100,000,000. This decrease would become effective upon filing the proposed Reverse Split Amendment with the Secretary of State of the State of Delaware.

The Board has determined that with approval of the reverse split of our Common Stock a decrease in the number of authorized shares of our Common Stock will be sufficient for existing and future corporate purposes, and allow flexibility for issuances of Common Stock to raise additional capital, for strategic business opportunities that may be presented from time to time and to allow additional shares of Common Stock to be reserved and available for issuance under our 2003 Stock Option, Deferred Stock and Restricted Stock Plan. The decrease in the number of authorized shares of our Common Stock from filing of the Reverse Split Amendment, if approved by the stockholders, will not change the number of outstanding shares of Common Stock but will provide the Board with the ability to issue sufficient additional shares of Common Stock as it determines to be for proper corporate purposes and in the best interests of the Company.

Table of Contents

With the exception of the number of authorized shares of Common Stock, the rights and preferences of the shares of Common Stock prior and subsequent to the decrease in the number of authorized shares of Common Stock will remain the same. After the effectiveness of the Reverse Split Amendment, it is not anticipated that the financial condition of the Company, the percentage ownership of management, the number of the Company's stockholders, or any aspect of the Company's business would materially change solely as a result of the decreased number of authorized shares of Common Stock.

The Common Stock is currently registered under Section 12(g) of the Exchange Act, and as a result, the Company is subject to the periodic reporting and other requirements of the Exchange Act. The decreased number of authorized shares of our Common Stock will not affect the registration of the Common Stock under the Exchange Act. If the proposed Reverse Split Amendment is implemented, our Common Stock will continue to be reported on the OTC Bulletin Board under the symbol "IRBO."

Effects of the Decrease in the Number of Authorized Shares of Common Stock

As a result of the decreased number of authorized shares of Common Stock, there will be a decrease in the total number of authorized shares of Common Stock that the Company may issue including the number of shares of Common Stock unissued and available for future issuance. This will decrease the number of shares of available Common Stock for issuance to raise capital for any proper corporate purpose approved by the Board of Directors, including future financing transactions as compared to what would be available upon approval of Proposal No. 2 for the Increased Common Stock Amendment. Currently, we have 24,472,796 shares of Common Stock available for issuance prior to approval of Proposal No. 2 or Proposal No. 4. Because of the reverse split which will be effected upon approval of the Reverse Split Amendment under Proposal No. 4, there will be additional authorized shares of Common Stock available for issuance compared to what is currently available even with the decrease in the number of authorized shares of which may have the effect of diluting the earnings per share and book value per share, as well as the stock ownership and voting rights, of the currently outstanding shares of our Common Stock. The effective of this may be construed as having an anti-takeover effect by permitting the issuance of shares to purchasers who might oppose a hostile takeover bid or oppose any efforts to amend or repeal certain provisions of our Certificate of Incorporation or our Bylaws. The increased authorized Common Stock is not being proposed in response to any effort of which management of the Company is aware to accumulate shares of Common Stock or obtain control of the Company, nor is it part of a similar plan by management.

Holders of the Common Stock have no preemptive or other subscription rights.

Shares of Common Stock Issued and Outstanding

The Company is currently authorized to issue a maximum of 250,000,000 shares of Common Stock. As of the Record Date of April 28, 2008, there were approximately 116,017,539 shares of Common Stock issued and outstanding. As of that date, an additional 58,739,637 shares of Common Stock were issuable upon exercise of outstanding stock options and warrants, an additional 75,028 shares were reserved under our stock option plans for future grants of options, 50,695,000 shares are reserved per outstanding contracts and convertible debt obligations. The Increased Common Stock Amendment will not change the number of outstanding shares of Common Stock but will provide the Board with the ability to issue additional shares of Common Stock as it determines to be for proper corporate purposes and in the best interests of the Company.

The holders of our Common Stock are entitled to one vote per share on all matters submitted to a vote of our stockholders. In addition, such holders are entitled to receive ratably such dividends, if any, as may be declared from time to time by our Board of Directors out of funds legally available therefore. No dividends may be paid on the Common Stock until all accrued but unpaid dividends on the shares of our preferred stock have been paid.

In the event of the dissolution, liquidation or winding up of our company, the holders of Common Stock are entitled to share ratably in all assets remaining after payment of all liabilities of our company and the preference amount distributable to the holders of the shares of preferred stock. The holders of Common Stock do not have any subscription, redemption or conversion rights, nor do they have any preemptive or other rights to acquire or subscribe for additional, unissued or treasury shares.

With the exception of the number of authorized shares of Common Stock, the rights and preferences of the shares of Common Stock prior and subsequent to the increased authorized Common Stock will remain the same. After the effectiveness of the Increased Authorized Common Stock Amendment, it is not anticipated that the financial condition of the Company, the percentage ownership of management, the number of the Company's stockholders, or any aspect of the Company's business would materially change solely as a result of the increased number of authorized shares of Common Stock.

The Common Stock is currently registered under Section 12(g) of the Exchange Act, and as a result, the Company is subject to the periodic reporting and other requirements of the Exchange Act. The increased authorized Common Stock will not affect the registration of the Common Stock under the Exchange Act. If the proposed Increased Common Stock Amendment is implemented, our Common Stock will continue to be reported on the OTC Bulletin Board under the symbol "IRBO."

No Appraisal Rights

The Company's stockholders are not entitled to appraisal rights under the Delaware General Corporation Law, the Company's Certificate of Incorporation, as amended, or Bylaws with regard to the proposed Reverse Stock Amendment, and the Company will not independently provide stockholders with any such right. There may exist other rights or actions under state law for stockholders who are aggrieved by an increase in authorized shares generally. Although the nature and extent of such rights or actions are uncertain and may vary depending upon the facts or circumstances, stockholder challenges to corporate action in general are related to the fiduciary responsibilities of corporate officers and directors and to the fairness of corporate transactions.

Effect on Legal Ability to Pay Dividends

The Increased Common Stock Amendment will have no material impact on the legal ability of the Company to pay dividends.

United States Federal Income Tax Consequences Of The Reverse Stock Split

The following is summary of certain material United States federal income tax consequences of the reverse stock split and does not purport to be a complete discussion of all of the possible federal income tax consequences of the reverse stock split. This summary is included for general information only. Further, it does not address any state, local or foreign income or other tax consequences. Also, it does not address the tax consequences to holders that are subject to special tax rules, such as banks, insurance companies, regulated investment companies, personal holding companies, foreign entities, nonresident alien individuals, broker-dealers and tax-exempt entities. The discussion is based on the provision of the United States federal income tax law as of the date hereof, which is subject to change retroactively as well as prospectively. This summary also assumes that the pre-reverse stock split shares were, and the post-reverse stock split shares will be, held as a "capital asset," as defined in the Internal Revenue Code of 1986, as amended (i.e., generally, property held for investment). The tax treatment of a stockholder may vary depending upon the particular facts and circumstances of such stockholder. Each stockholder is urged to consult with such stockholders own tax advisor with respect to the tax consequences of the Reverse Stock Amendment. As used herein, the term United States holder means a stockholder that is, for federal income tax purposes: a citizen or resident of the United States; a corporation or other entity taxed as a corporation created or organized in or under the laws of the United States, any state of the United States or the District of Columbia; an estate the income of which is subject to federal income tax

regardless of its source; or a trust if a U.S. court is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decision of the trust.

31

Table of Contents

Other than receiving whole shares for fractional shares discussed above, no gain or loss should be recognized by a stockholder upon such stockholder's exchange of pre-reverse stock split shares for post-reverse stock split shares pursuant to the reverse stock split.

In the reverse stock split (including any fraction of a post-reverse stock split share deemed to have been received), the tax basis will be the same as the stockholder's aggregate tax basis in the pre-reverse stock split shares exchanged therefore. The stockholder's holding period for the post-reverse stock split shares will include the period during which the stockholder held the pre-reverse stock split shares surrendered in the reverse stock split.

The Company's view regarding the tax consequences of the reverse stock split is not binding on the Internal Revenue Service or the courts. Accordingly, each stockholder should consult with his or her own tax advisor with respect to all of the potential tax consequences to him or her of the reverse stock split.

TO ENSURE COMPLIANCE WITH TREASURY DEPARTMENT CIRCULAR 230, STOCKHOLDERS ARE HEREBY NOTIFIED THAT: (A) ANY DISCUSSION OF FEDERAL TAX ISSUES IN THIS PROXY STATEMENT IS NOT INTENDED OR WRITTEN TO BE RELIED UPON, AND CANNOT BE RELIED UPON BY STOCKHOLDERS FOR THE PURPOSE OF AVOIDING PENALTIES THAT MAY BE IMPOSED ON STOCKHOLDERS UNDER THE INTERNAL REVENUE CODE; (B) SUCH DISCUSSION IS INCLUDED HEREIN BY THE COMPANY IN CONNECTION WITH THE PROMOTION OR MARKETING (WITHIN THE MEANING OF CIRCULAR 230) BY THE COMPANY OF THE TRANSACTIONS OR MATTERS ADDRESSED HEREIN; AND (C) STOCKHOLDERS SHOULD SEEK ADVICE BASED ON THEIR PARTICULAR CIRCUMSTANCES FROM AN INDEPENDENT TAX ADVISOR.

Canadian Federal Income Tax Considerations of the Reverse Stock Split

The following summary describes the principal Canadian federal income tax considerations under the Income Tax Act (Canada) (the "Tax Act") generally applicable to stockholders whose shares are consolidated pursuant to the reverse stock split and who, for purposes of the Tax Act, are resident in Canada, hold their shares as capital property and deal at arm's length and are not affiliated with the Company.

This summary is based on the current provisions of the Tax Act, the regulations thereunder (the "Regulations"), and counsel's understanding of the current published administrative and assessing practices of the Canada Revenue Agency and takes into account all specific proposals to amend the Tax Act and the Regulations publicly announced by the Minister of Finance (Canada) prior to the date hereof. This summary does not take into account or anticipate any other changes in law or administrative practices, whether by judicial, governmental or legislative action or decision, nor does it take into account provincial, territorial or foreign income tax legislation or considerations.

This summary is of a general nature only and is not intended to be, and should not be construed to be, legal or tax advice to any particular stockholder. Stockholders should consult their own tax advisors as to the tax consequences in their particular circumstances.

A stockholder will not realize a capital gain or a capital loss as a result of implementation of the Reverse Stock Amendment.

THE BOARD UNANIMOUSLY RECOMMENDS A VOTE "FOR" THE PROPOSAL TO AMEND THE AMENDED CERTIFICATE OF INCORPORATION, AS AMENDED, TO EFFECT A REVERSE STOCK SPLIT AT A RATIO OF ONE-FOR-TEN AT ANY TIME PRIOR TO MARCH 31, 2009, IF AT ALL, WITH THE TIMING THEREOF TO BE DETERMINED BY THE BOARD OF DIRECTORS, IN ITS SOLE DISCRETION, AND THE DECREASE IN THE NUMBER OF OUR AUTHORIZED SHARES OF COMMON STOCK.

Table of Contents

PROPOSAL NO. 5

RATIFICATION OF THE APPOINTMENT OF RBSM LLP
AS INDEPENDENT OUTSIDE ACCOUNTANT

The Company's Stockholders are being asked to ratify the appointment of RBSM LLP as our independent outside accountant.

Required Vote

The ratification of the appointment of RBSM LLP as our independent outside accountant will be adopted upon the affirmative vote of the majority of shares voting on the proposal. Abstentions and brokers non-votes will have no effect on the outcome.

The Board of Directors recommends a vote FOR the ratification of the appointment of RBSM LLP as our independent outside accountants for the year ending December 31, 2008.

RBSM LLP was selected by the Board as our principal independent public accounting firm beginning in April 2004 and has conducted our audit for the years ending December 31, 2004, 2005, 2006 and 2007. We are asking Stockholders to ratify the appointment of RBSM LLP to conduct the audit for the year ending December 31, 2008. A representative of RBSM LLP will attend the annual meeting telephonically, have an opportunity to make a statement and be available to answer questions.

The following table sets forth fees billed to us by RBSM during the fiscal years ended December 31, 2007 and December 31, 2006 for: (i) services rendered for the audit of our annual financial statements and the review of our quarterly financial statements, (ii) services by our auditor that are reasonably related to the performance of the audit or review of our financial statements and that are not reported as Audit Fees, (iii) services rendered in connection with tax compliance, tax advice and tax planning, and (iv) all other fees for services rendered.

	December 31, 2007	December 31,2006
(i)Audit Fees	\$ 68,050	\$ 58,856
(ii)Audit Related Fees	-	-
(iii)Tax Fees	-	-
(iv)All Other Fees	3,300	4,795
Total Fees	\$ 71,350	\$ 63,651

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 consolidated financial statements included in quarterly reports and services that are normally provided by the Company's certifying accountant in connection with statutory and regulatory filings or engagements.

TAX FEES. Consists of all services performed by the independent auditor's tax personnel, except those related to the audit of financial statements, and include tax compliance, tax consulting, tax planning and non-recurring projects.

ALL OTHER FEES. Consists of fees billed for professional services performed by the independent auditors related to the review of and consent to the Company's SB-2 registration statement, and exhibits thereto.

Our Board has considered whether the provision of these services is compatible with maintaining RBSM LLP's independence and has concluded that it is compatible.

33

Table of Contents

AMENDED AND RESTATED BYLAWS

Since the completion of the statutory merger in July 2003, our Bylaws have not been amended. Our Board has determined that it is in the best interest of the Company to update our Bylaws to current Delaware law, to update who can call a special meeting of the stockholders, to update provisions regarding the number and term of office of directors and the process of filling vacancies on the Board, to update provisions regarding the issuance of shares, share certificates and matters related to the transfer of shares, and other minor stylistic, definitional and clarifying drafting alterations.

The Board of Directors has approved the Amended and Restated Bylaws as permitted under provisions of the Bylaws and no stockholder approval is needed for amending the Bylaws. All that is required is that notice of the amended Bylaws is given in the notice of the meeting of stockholders. Therefore, a copy of the entire text of the Amended and Restated Bylaws, which sets forth the amendments discussed above is attached as Appendix D. The above description of the amendments to the Amended and Restated Bylaws are a summary only and you should read the Amended and Restated Bylaws that are attached in their entirety.

The Amended and Restated Bylaws have been approved by our Board of Directors and no vote of the stockholders is required for approval.

SECTION 16(a) BENEFICIAL OWNERSHIP
REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934 requires our executive officers and directors, and persons who own more than ten percent of a registered class of our equity securities to file reports of ownership and changes in ownership with the Securities and Exchange Commission. Executive officers, directors and greater than 10% Stockholders are required by SEC regulation to furnish us with copies of all Section 16(a) forms they file. Based solely on its review of the copies of such forms received by us during the year ended December 31, 2007, we believe that, during such year none of our executive officers, directors, and ten percent Stockholders have complied with such filing requirements.

SHAREHOLDER PROPOSALS

Proposals to be Included in Proxy Statement

Shareholders are hereby notified that if they wish a proposal to be included in our proxy statement and form of proxy relating to the 2009 Annual Meeting of Shareholders, they must deliver a written copy of their proposal a reasonable time before the Company begins to print and mail its proxy materials for the meeting. Proposals must comply with the proxy rules relating to stockholder proposals, in particular Rule 14a-8 under the Securities Exchange Act of 1934, in order to be included in our proxy materials.

Proposals to be Submitted for Annual Meeting

Shareholders who wish to submit a proposal for consideration at our 2009 annual meeting of Stockholders, but who do not wish to submit the proposal for inclusion in our proxy statement pursuant to Rule 14a-8 under the Exchange Act, must, in accordance with our bylaws, deliver a copy of their proposal no earlier than the 90th day prior to such annual meeting and not later than the close of business on the later of the 60th day prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is advanced by more than 30 days or delayed by more than 60 days from such anniversary date or if the Company has not previously held an annual meeting, notice by the stockholder to be timely must be so delivered not earlier than the

close of business on the 90th day prior to such annual meeting and not later than the close of business on the later of the 60th day prior to such annual meeting or the tenth day following the day on which public announcement of the date of such meeting is first made. Public announcement means disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable news service or in a document publicly filed by the company with the SEC pursuant to Section 13, 14 or 15(d) of the Securities Exchange Act of 1934, as amended. Any shareholder submitting a proposal must provide a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial holder, if any, on whose behalf the proposal is made. The stockholder and the beneficial owner, if any, on whose behalf the proposal is made must provide their name and address as it appears on the books of the Company and the class and number of shares of the Company which are beneficially owned and of record. Furthermore, such stockholder must promptly provide any other information reasonably requested by the Company.

Table of Contents

TRANSACTION OF OTHER BUSINESS

At the date of this Proxy Statement, the only business which our Board of Directors intends to present or knows that others will present at the meeting is as set forth above. If any other matter or matters are properly brought before the meeting, or any adjournment thereof, it is the intention of the persons named in the accompanying form of proxy to vote the proxy on such matters in accordance with their best judgment.

Your cooperation in giving this matter your immediate attention and returning your proxies will be appreciated.

By Order of the Board of Directors

/s/ Michael K. Wilhelm
President and Chief Executive Officer

Dated: May 9, 2008
Scottsdale, Arizona

Table of Contents

PROXY

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS
IR BIOSCIENCES HOLDINGS, INC.

The undersigned hereby appoints Messrs. Michael K. Wilhelm and John N. Fermanis, each of them as proxy holders with full power of substitution, to represent, vote and act with respect to all shares of Common Stock of IR BioSciences Holdings, Inc. which the undersigned would be entitled to vote at the annual meeting of Stockholders to be held on June 25, 2008, at 9:00 a.m., local time, at the Villagio Inn, located at The Vintage Estates, 6841 Washington Street, Yountville, California ,94599, or any adjournments thereof, with all the powers the undersigned would possess if personally present as follows:

(Continued, and to be marked, dated and signed, on the other side)

∨ DETACH PROXY CARD HERE ∨
IR BIOSCIENCES HOLDINGS, INC.

The Board of Directors recommends a vote “FOR” each of the proposals. The Proxy confers authority to vote and shall be voted in accordance with such recommendation unless a contrary instruction is indicated, in which case, the shares represented by the Proxy will be voted in accordance with such instruction. If no instruction is specified with respect to the matter to be acted upon, the shares represented by the proxy will be voted “FOR” the proposal and in accordance with the recommendations of management. If any other business is presented at the meeting, this Proxy confers authority to and shall be voted in accordance with the recommendations of management.

1. THE ELECTION OF SIX DIRECTORS TO HOLD OFFICE UNTIL THE 2008 ANNUAL MEETING OF STOCKHOLDERS

01 Michael K. Wilhelm	04 Robert J. Hariri, M.D., Ph.D.	(INSTRUCTIONS: TO WITHHOLD AUTHORITY TO VOTE FOR ANY INDICATED NOMINEE, WRITE THE NUMBER(S) OF THE NOMINEE(S) ON THE LINE BELOW.)
02 Hal N. Siegel, Ph.D.	05 Lance K. Gordon, Ph.D.	
03 Theodore E. Staahl, M.D.	06 Jerome B. Zeldis, M.D., Ph.D.	
o Vote For All Ph.D. Nominees (except as marked)		
o Vote WITHHELD From All Nominees		_____

3. In the event Proposal No. 2 is approved by the stockholders, approval of the amendment to IR BioSciences Holdings, Inc.’s 2003 Stock Option, Deferred Stock and Restricted Stock Plan to increase the number of shares of the Company’s Common Stock reserved and available for issuance under the Plan from 20,000,000 to 60,000,000

FOR AGAINST ABSTAIN

2. Approval of an amendment to IR BioSciences Holdings, Inc.’s Certificate of Incorporation, as amended, to increase the number of authorized shares of Common Stock from

4. Approval of an Amendment to IR BioSciences Holdings, Inc.’s Certificate of Incorporation, as amended, providing for a recapitalization in which the

250,000,000 to 450,000,000.

issued and outstanding shares of the Company's Common Stock are to be reverse split at a ratio of one-for-ten at any time prior to March 31, 2009, with the timing thereof, if at all, to be determined by the Board of Directors in its sole discretion, and to decrease the number of authorized shares of Common Stock to 100,000,000.

FOR AGAINST ABSTAIN

FOR AGAINST ABSTAIN

5. The ratification of the appointment of Russell Bedford Stefanou Mirchandani LLP as our independent public accountants for the year ending December 31, 2008.

FOR AGAINST ABSTAIN

(Please date this Proxy and sign your name as it appears on your stock certificates. Executors, administrators, trustees, etc., should give their full title. If a corporation, please sign in full corporate name by the president or other authorized officer. If a partnership, please sign in partnership name by an authorized person. All joint owners should sign.)

6. Transaction of such other business as may properly come before the meeting and any adjournments or adjournments thereof.

FOR AGAINST ABSTAIN

(Number of Shares)

(Please Print Your Name)

(Please Print Your Name)

(Date)

(Signature of Shareholder)

(Signature of Shareholder)

(Email Address)

This Proxy may be revoked prior to its exercise by filing with our Secretary duly executed proxy bearing a later date or an instrument revoking this Proxy, or by attending the meeting and voting in person.

Please Detach Here

^ You Must Detach This Portion of the Proxy Card ^
Before Returning it in the Enclosed Envelope

Table of Contents

APPENDIX A

PROPOSED AMENDMENT TO THE COMPANY'S CERTIFICATE OF INCORPORATION, AS AMENDED

CERTIFICATE OF AMENDMENT
TO
CERTIFICATE OF INCORPORATION
OF
IR BIOSCIENCES HOLDINGS, INC.,

a Delaware corporation

Pursuant to Section 242 of the General Corporation Law of the State of Delaware, the undersigned, Michael K. Wilhelm, President and Chief Executive Officer of IR BioSciences Holdings, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, DOES HEREBY CERTIFY,

FIRST: The name of the Corporation is IR BioSciences Holdings, Inc. (hereinafter the "Corporation").

SECOND: Pursuant to Section 242 of the Delaware General Corporation Law, the Board of Directors of the Corporation has duly adopted a resolution proposing and declaring advisable the amendment to the Certificate of Incorporation of the Corporation, as amended, set forth in this Certificate of Amendment as follows:

RESOLVED, that, Article FOURTH of the Certificate of Incorporation of the Corporation, as amended, is amended by striking out the first paragraph of subsection (a) consisting of three sentences of the Article thereof numbered "FOURTH" and changing said Article so that as amended, the first paragraph of subsection (a) of said Article shall read as follows:

This Corporation is authorized to issue two classes of stock to be designated as "Common Stock" and "Preferred Stock". The total number of shares of Common Stock which this Corporation is authorized to issue is Four Hundred Fifty Million (450,000,000) shares, par value \$0.001 per share. The total number of shares of Preferred Stock which this Corporation is authorized to issue is Ten Million (10,000,000) shares, par value \$0.001 per share."

THIRD: Pursuant to Section 242 of the Delaware General Corporation Law, a majority of the outstanding stock entitled to vote thereon and a majority of the outstanding stock of each class entitled to vote thereon as a class has duly approved, the amendment to the Certificate of Incorporation of the Corporation, as amended, set forth in this Certificate of Amendment.

FOURTH: That said amendment was duly adopted, in accordance with the provisions of Section 242 of the General Corporation law of the State of Delaware.

FIFTH: This amendment shall be effective on the date this Certificate of Amendment is filed and accepted by the Secretary of State of the State of Delaware.

IN WITNESS WHEREOF, the undersigned, being the Chief Executive Officer of the Corporation, for purposes of amending its Certificate of Incorporation pursuant to the General Corporation Law of the State of Delaware, acknowledges that it is his act and deed and that the facts stated herein are true, and has signed this instrument this ____ day of _____, 2008.

IR BIOSCIENCES HOLDINGS, INC.

By:

Name: Michael K. Wilhelm

Title: Chief Executive Officer

37

Table of Contents

APPENDIX B

AMENDMENT NO. 3
TO
IR BIOSCIENCES HOLDINGS, INC.

2003 STOCK OPTION, DEFERRED STOCK AND RESTRICTED STOCK PLAN

Pursuant to Section 7 of the IR BioSciences Holdings, Inc. 2003 Stock Option, Deferred Stock and Restricted Stock Plan (the "Plan") the Board of Directors has duly adopted a resolution, conditioned upon approval by the Stockholders to increase the total number of shares of Common Stock reserved and available for issuance under the Plan as follows:

Section 3(a) of Plan is hereby amended to read in its entirety as follows:

“SECTION 3 STOCK SUBJECT TO PLAN

(a) The total number of shares of Stock reserved and available for issuance under the Plan shall be 60,000,000 shares. Such shares shall consist of authorized and unissued shares.”

All other terms and provisions of the Plan shall remain unchanged and in full force and effect as written.

Pursuant to Section 7 of the Plan, a majority in voting interest of the Stockholders present in person or by proxy and entitled to vote at the meeting of Stockholders at which this Amendment No. 3 was considered, has duly approved this Amendment No. 3 to the Plan.

IN WITNESS WHEREOF, this Amendment No. 3 is made effective this ___ day of _____, 2008.

IR BIOSCIENCES HOLDINGS, INC.,
A Delaware Corporation

Name: Michael K. Wilhelm
Title: Chief Executive Officer

Table of Contents

APPENDIX C

PROPOSED AMENDMENT TO THE COMPANY'S CERTIFICATE OF INCORPORATION, AS AMENDED

CERTIFICATE OF AMENDMENT
TO
CERTIFICATE OF INCORPORATION
OF
IR BIOSCIENCES HOLDINGS, INC.,

a Delaware corporation

Pursuant to Section 242 of the General Corporation Law of the State of Delaware, the undersigned, Michael K. Wilhelm, President and Chief Executive Officer of IR BioSciences Holdings, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, DOES HEREBY CERTIFY,

FIRST: The name of the Corporation is IR BioSciences Holdings, Inc. (hereinafter the "Corporation").

SECOND: Pursuant to Section 242 of the Delaware General Corporation Law, the Board of Directors of the Corporation has duly adopted a resolution proposing and declaring advisable the amendment to the Certificate of Incorporation of the Corporation, as amended, set forth in this Certificate of Amendment as follows:

RESOLVED, that, Article FOURTH of the Certificate of Incorporation of the Corporation, as amended, is amended by striking out the first paragraph of subsection (a) consisting of three sentences of the Article thereof numbered "FOURTH" and changing said Article so that as amended, the first paragraph of subsection (a) of said Article shall read as follows:

"This Corporation is authorized to issue two classes of stock to be designated as "Common Stock" and "Preferred Stock". The total number of shares of Common Stock which this Corporation is authorized to issue is One Hundred Million (100,000,000) shares, par value \$0.001 per share. The total number of shares of Preferred Stock which this Corporation is authorized to issue is Ten Million (10,000,000) shares, par value \$0.001 per share."

RESOLVED, that Article FOURTH of the Certificate of Incorporation of the Corporation, as amended, is amended by striking out the first paragraph of subsection (b) consisting of one sentence of the Article thereof numbered "FOURTH" and changing said Article so that as amended, subsection (b) of said Article shall read as follows:

"Upon the effectiveness of the amendment contained in this Certificate of Amendment (the "Effective Date") each ten (10) shares of Common Stock, par value \$.001 per share, of this Corporation's issued and outstanding Common Stock at the close of business on the Effective Date shall be converted into one (1) share of fully paid and nonassessable Common Stock, without change in the aggregate number of shares of Common Stock this Corporation shall be authorized to issue pursuant to Article Fourth (a)."

THIRD: Pursuant to Section 242 of the Delaware General Corporation Law, a majority of the outstanding stock entitled to vote thereon and a majority of the outstanding stock of each class entitled to vote thereon as a class has duly approved, the amendment to the Certificate of Incorporation of the Corporation, as amended, set forth in this Certificate of Amendment.

FOURTH: That said amendment was duly adopted, in accordance with the provisions of Section 242 of the General Corporation law of the State of Delaware.

FIFTH: This amendment shall be effective on the date this Certificate of Amendment is filed and accepted by the Secretary of State of the State of Delaware.

IN WITNESS WHEREOF, the undersigned, being the Chief Executive Officer of the Corporation, for purposes of amending its Certificate of Incorporation pursuant to the General Corporation Law of the State of Delaware, acknowledges that it is his act and deed and that the facts stated herein are true, and has signed this instrument this __ day of _____, 2008.

IR BIOSCIENCES HOLDINGS, INC.,

By: _____

Name: Michael K. Wilhelm

Title: Chief Executive Officer

Table of Contents

APPENDIX D
AMENDED AND RESTATED BYLAWS
OF
IR BIOSCIENCES HOLDINGS, INC.

A Delaware Corporation

ARTICLE I: OFFICES

SECTION 1.1 Registered Office.

The registered office of IR BioSciences Holdings, Inc., ("Corporation") shall be at and the name of its registered agent at that address is 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808 and the name of its registered agent at that address is Corporation Service Company.

SECTION 1.2 Principal Office.

The principal office for the transaction of the business of the Corporation shall be 8767 E. Via De Ventura, Suite # 190, Scottsdale, Arizona, 85258, or otherwise as set forth in a resolution adopted by the Board.

SECTION 1.3 Other Offices.

The Corporation may also have an office or offices at such other place or places, either within or without the State of Delaware, as the Board may from time to time determine or as the business of the Corporation may require.

ARTICLE II: MEETINGS OF STOCKHOLDERS

SECTION 2.1 Place of Meetings.

All annual meetings of stockholders and all other meetings of stockholders shall be held either at the principal office of the Corporation or at any other place within or without the State of Delaware that may be designated by the Board pursuant to authority hereinafter granted to the Board.

SECTION 2.2 Annual Meetings.

Annual meetings of stockholders of the Corporation for the purpose of electing directors and for the transaction of such other business as may properly come before such meetings may be held at such time and place and on such date as the Board shall determine by resolution.

SECTION 2.3 Special Meetings.

A special meeting of the stockholders for the transaction of any proper business may be called at any time exclusively by the Board or the Chairman.

SECTION 2.4 Notice of Meetings.

Except as otherwise required by law, notice of each meeting of stockholders, whether annual or special, shall be given not less than ten (10) days nor more than sixty (60) days before the date of the meeting to each stockholder of record entitled to vote at such meeting by delivering a typewritten or printed notice thereof to such stockholder personally, or by depositing such notice in the United States mail, in a postage prepaid envelope, directed to such stockholder at such stockholder's post office address furnished by such stockholder to the Secretary of the Corporation for such purpose, or, if such stockholder shall not have furnished an address to the Secretary for such purpose, then at such stockholder's post office address last known to the Secretary, or by transmitting a notice thereof to such stockholder at such address by telegraph, cable, wireless or facsimile. Except as otherwise expressly required by law, no publication of any notice of a meeting of stockholders shall be required. Every notice of a meeting of stockholders shall state the place, date and hour of the meeting and, in the case of a special meeting, shall also state the purpose for which the meeting is called. Notice of any meeting of stockholders shall not be required to be given to any stockholder to whom notice may be omitted pursuant to applicable Delaware law or who shall have waived such notice, and such notice shall be deemed waived by any stockholder who shall attend such meeting in person or by proxy, except a stockholder who shall attend such meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Except as otherwise expressly required by law, notice of any adjourned meeting of stockholders need not be given if the time and place thereof are announced at the meeting at which the adjournment is taken.

Table of Contents

SECTION 2.5 Fixing Date for Determination of Stockholders of Record.

In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any other change, conversion or exchange of stock or for the purpose of any other lawful action other than to consent to corporate action in writing without a meeting, the Board may fix, in advance, a record date, which shall not be more than sixty (60) nor less than ten (10) days before the date of such meeting, nor more than sixty (60) days prior to any such other action. If in any case involving the determination of stockholders for any purpose other than notice of or voting at a meeting of stockholders the Board shall not fix such a record date, then the record date for determining stockholders for such purpose shall be the close of business on the day on which the Board shall adopt the resolution relating thereto. A determination of stockholders entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of such meeting; provided, however, that the Board may fix a new record date for the adjourned meeting.

SECTION 2.6 Quorum.

Except as otherwise required by law, the holders of record of a majority in voting interest of the shares of stock of the Corporation entitled to be voted thereat, present in person or by proxy, shall constitute a quorum for the transaction of business at any meeting of stockholders of the Corporation or any adjournment thereof. Subject to the requirement of a larger percentage vote, if any, contained in the Certificate of Incorporation, these Bylaws or by statute, the stockholders present at a duly called or held meeting at which a quorum is present may continue to do business until adjournment, notwithstanding any withdrawal of stockholders that may leave less than a quorum remaining, if any action taken (other than adjournment) is approved by the vote of at least a majority in voting interest of the shares required to constitute a quorum. In the absence of a quorum at any meeting or any adjournment thereof, a majority in voting interest of the stockholders present in person or by proxy and entitled to vote thereat or, in the absence therefrom of all the stockholders, any officer entitled to preside at, or to act as secretary of, such meeting may adjourn such meeting from time to time. At any such adjourned meeting at which a quorum is present, any business may be transacted that might have been transacted at the meeting as originally called.

SECTION 2.7 Voting.

(A) Each stockholder shall, at each meeting of stockholders, be entitled to vote, in the manner prescribed by the Corporation's Certificate of Incorporation, in person or by proxy each share of the stock of the Corporation that has voting rights on the matter in question and that shall have been held by such stockholder and registered in such stockholder's name on the books of the Corporation:

(i) on the date fixed pursuant to Section 2.5 of these Bylaws as the record date for the determination of stockholders entitled to notice of and to vote at such meeting; or

(ii) if no such record date shall have been so fixed, then (a) at the close of business on the business day next preceding the day upon which notice of the meeting shall be given or (b) if notice of the meeting shall be waived, at the close of business on the business day next preceding the day upon which the meeting shall be held.

(B) Shares of the Corporation's own stock belonging to the Corporation or to another corporation, if a majority of the shares entitled to vote in the election of directors in such other corporation is held, directly or indirectly, by the Corporation, shall neither be entitled to vote nor be counted for quorum purposes. Persons holding stock of the Corporation in a fiduciary capacity shall be entitled to vote such stock. Persons whose stock is pledged shall be entitled to vote, unless in the transfer by the pledgor on the books of the Corporation the pledgor shall have expressly

empowered the pledgee to vote thereon, in which case only the pledgee, or the pledgee's proxy, may represent such stock and vote thereon. Stock having voting power standing of record in the names of two or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety or otherwise, or with respect to which two or more persons have the same fiduciary relationship, shall be voted in accordance with the provisions of the Delaware General Corporation Law, as the same exists or may hereafter be amended (the "DGCL").

Table of Contents

(C) Subject to the provisions of the Corporation's Certificate of Incorporation, any such voting rights may be exercised by the stockholder entitled thereto in person or by such stockholder's proxy appointed by an instrument in writing, subscribed by such stockholder or by such stockholder's attorney thereunto authorized and delivered to the secretary of the meeting. The attendance at any meeting of a stockholder who may theretofore have given a proxy shall not have the effect of revoking the same unless such stockholder shall in writing so notify the secretary of the meeting prior to the voting of the proxy. At any meeting of stockholders at which a quorum is present, all matters, except as otherwise provided in the Certificate of Incorporation, in these Bylaws or by law, shall be decided by the vote of a majority in voting interest of the stockholders present in person or by proxy and entitled to vote thereat and thereon. The vote at any meeting of stockholders on any question need not be by ballot, unless so directed by the chairman of the meeting. On a vote by ballot, each ballot shall be signed by the stockholder voting, or by such stockholder's proxy, if there be such proxy, and it shall state the number of shares voted.

SECTION 2.8 Inspectors of Election.

Prior to each meeting of stockholders, the Chairman of such meeting shall appoint an inspector(s) of election to act with respect to any vote. Each inspector of election so appointed shall first subscribe an oath faithfully to execute the duties of an inspector of election at such meeting with strict impartiality and according to the best of such inspector of election's ability. Such inspector(s) of election shall decide upon the qualification of the voters and shall certify and report the number of shares represented at the meeting and entitled to vote on any question, determine the number of votes entitled to be cast by each share, shall conduct the vote and, when the voting is completed, accept the votes and ascertain and report the number of shares voted respectively for and against each question, and determine, and retain for a reasonable period a record of the disposition of, any challenge made to any determination made by such inspector(s) of election. Reports of inspector(s) of election shall be in writing and subscribed and delivered by them to the Secretary of the Corporation. The inspector(s) of election need not be stockholders of the Corporation, and any officer of the Corporation may be an inspector(s) of election on any question other than a vote for or against a proposal in which such officer shall have a material interest. The inspector(s) of election may appoint or retain other persons or entities to assist the inspector(s) of election in the performance of the duties of the inspector(s) of election.

SECTION 2.9 Advance Notice of Stockholder Proposals and Stockholder Nominations.

Nominations of persons for election to the board of directors of the Corporation and the proposal of business to be considered by the stockholders may be made at any meeting of stockholders only (a) pursuant to the Corporation's notice of meeting, (b) by or at the direction of the Board, or (c) by any stockholder of the Corporation who was a stockholder of record at the time of giving of notice provided for in these bylaws, who is entitled to vote at the meeting and who complies with the notice procedures set forth in this Section 2.9.

To be timely, a stockholder's notice shall be delivered to the secretary at the principal executive offices of the Corporation not later than the close of business on the 60th day nor earlier than the close of business on the 90th day prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is advanced by more than 30 days or delayed by more than 60 days from such anniversary date or if the Corporation has not previously held an annual meeting, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the 90th day prior to such annual meeting and not later than the close of business on the later of the 60th day prior to such annual meeting or the tenth day following the day on which public announcement of the date of such meeting is first made by the Corporation. In no event shall the public announcement of a postponement or adjournment of an annual meeting to a later date or time commence a new time period for the giving of a stockholder's notice as described above.

Such stockholder's notice shall set forth (I) as to each person whom the stockholder proposes to nominate for election or reelection as a director (a) all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (or any successor thereto) (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected), (b) the name and address of the stockholder who intends to make the nomination and of the person or persons to be nominated, (c) a representation that the stockholder is a holder of record of stock of the Corporation entitled to vote at such meeting and intends to appear in person or by proxy at the meeting and nominate the person or persons specified in the notice; (d) a description of all arrangements or understandings between the stockholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by the stockholder; and (e) such other information regarding each nominee proposed by such stockholder as would be required to be included in a proxy statement filed pursuant to the proxy rules of the United States Securities and Exchange Commission had the nominee been nominated, or intended to be nominated, by the Board, (II) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (III) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (a) the name and address of such stockholder, as they appear on the Corporation's books, and of such beneficial owner, and (b) the class and number of shares of the corporation which are owned beneficially and of record by such stockholder and such beneficial owner. In addition, the stockholder making such proposal shall promptly provide any other information reasonably requested by the Corporation. Notwithstanding anything in these Bylaws to the contrary, no business shall be conducted at any meeting of the stockholders except in accordance with the procedures set forth in this Section 2.9(A). The Chairman of any such meeting shall direct that any nomination or business not properly brought before the meeting shall not be considered.

Table of Contents

SECTION 2.10 Action Without Meeting.

Any action required to be taken at any annual or special meeting of stockholders of the Corporation, or any action which may be taken at any annual or special meeting of such stockholders, may, if such action has been earlier approved by the Board, be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted. Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing.

ARTICLE III: BOARD OF DIRECTORS

SECTION 3.1 General Powers.

Subject to any requirements in the Certificate of Incorporation, these Bylaws, or of the DGCL as to action which must be authorized or approved by the stockholders, any and all corporate powers shall be exercised by or under the authority of, and the business and affairs of the Corporation shall be under the direction of, the Board to the fullest extent permitted by law. Without limiting the generality of the foregoing, it is hereby expressly declared that the Board shall have the following powers, to wit:

(A) to select and remove all the officers, agents and employees of the Corporation, prescribe such powers and duties for them as may not be inconsistent with law, the Certificate of Incorporation or these Bylaws, fix their compensation, and require from them security for faithful service;

(B) to conduct, manage and control the affairs and business of the Corporation, and to make such rules and regulations therefor not inconsistent with law, the Certificate of Incorporation or these Bylaws, as it may deem best;

(C) to change the location of the registered office of the Corporation in Section 1.1 hereof; to change the principal office and the principal office for the transaction of the business of the Corporation from one location to another as provided in Section 1.2 hereof; to fix and locate from time to time one or more offices of the Corporation within or without the State of Delaware as provided in Section 1.3 hereof; to designate any place within or without the State of Delaware for the holding of any meeting or meetings of stockholders; and to adopt, make and use a corporate seal, and to prescribe the forms of certificates of stock, and to alter the form of such seal and of such certificates from time to time, and in its judgment as it may deem best, provided such seal and such certificate shall at all times comply with the provisions of law;

(D) to authorize the issuance of shares of stock of the Corporation from time to time, upon such terms and for such considerations as may be lawful;

(E) to borrow money and incur indebtedness for the purposes of the Corporation, and to cause to be executed and delivered therefor, in the corporate name, promissory notes, bonds, debentures, deeds of trust and securities therefor; and

(F) by resolution adopted by a majority of the whole Board to designate an executive and other committees of the Board, each consisting of one or more directors, to serve at the pleasure of the Board, and to prescribe the manner in which proceedings of such committee or committees shall be conducted.

SECTION 3.2 Number and Term of Office.

(A) Until this Section 3.2 is amended by a resolution duly adopted by the Board or by the stockholders of the Corporation, the number of directors constituting the entire Board shall be not less than two (2) members nor more than nine (9) members. Directors need not be stockholders. The number of directors constituting the Board of Directors may be increased or decreased from time to time by resolution by the Board of Directors; provided, however, that no such decrease shall have the effect of shortening the term of any incumbent director. Each of the directors of the Corporation shall hold office for the full term and until his successor shall have been duly elected and shall qualify, or until his earlier death or disqualification, or until he shall resign or shall have been removed in the manner hereinafter provided. A director need not be a resident of the State of Delaware or a stockholder of the Corporation.

Table of Contents

SECTION 3.3 Chairman of the Board.

The Chairman of the Board, when present, shall preside at all meetings of the Board and all meetings of stockholders. The Chairman of the Board shall perform other duties commonly incident to his office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time.

SECTION 3.4 Election of Directors.

At each annual meeting of stockholders, directors shall be elected to serve until the next annual meeting or until his or her resignation or removal. The directors shall be elected by the stockholders of the Corporation, and at each election of directors at which a quorum is present, the persons receiving the greater number of votes, up to the number of directors then to be elected, of the stockholders present in person or by proxy and entitled to vote thereon shall be the persons then elected; provided, however, that for purposes of such vote no stockholder shall be allowed to cumulate his votes. Election of directors may be conducted in any manner approved at such meeting.. The election of directors is subject to any provision contained in the Certificate of Incorporation relating thereto, including any provision regarding the rights of holders of preferred stock to elect directors.

SECTION 3.5 Resignations.

Any director of the Corporation may resign at any time by giving written notice to the Board or to the Secretary of the Corporation. Any such resignation shall take effect at the time specified therein, or, if the time is not specified, it shall take effect immediately upon receipt; and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

SECTION 3.6 Vacancies.

Except as otherwise provided in the Certificate of Incorporation, as amended, if a vacancy occurs on the Board from whatever cause, including a vacancy resulting from an increase in the number of Directors, the Board may fill the vacancy, or, if the directors in office constitute less than a quorum of the Board, they may fill the vacancy by the affirmative vote of a majority of the remaining directors then in office. The stockholders may fill a vacancy only if there are no Directors in office. A Director elected to fill a vacancy shall serve only until his successor has been duly elected and qualified. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

SECTION 3.7 Place of Meeting.

The Board or any committee thereof may hold any of its meetings at such place or places within or without the State of Delaware as the Board or such committee may from time to time by resolution designate or as shall be designated by the person or persons calling the meeting or in the notice or a waiver of notice of any such meeting. Directors may participate in any regular or special meeting of the Board or any committee thereof by means of conference telephone or similar communications equipment pursuant to which all persons participating in the meeting of the Board or such committee can hear each other, and such participation shall constitute presence in person at such meeting.

SECTION 3.8 Regular Meetings.

Regular meetings of the Board may be held at such times as the Board shall from time to time by resolution determine.

SECTION 3.9 Special Meetings.

Special meetings of the Board for any purpose or purposes shall be called at any time by the Chairman of the Board or, if the Chairman of the Board is absent or unable or refuses to act, by the Chief Executive Officer or the President, and may also be called by any two members of the Board. Except as otherwise provided by law or by these Bylaws, written notice of the time and place of special meetings shall be delivered personally or by facsimile to each director, or sent to each director by mail or by other form of written communication, charges prepaid, addressed to such director at such director's address as it is shown upon the records of the Corporation, or, if it is not so shown on such records and is not readily ascertainable, at the place in which the meetings of the directors are regularly held. In case such notice is mailed or telegraphed, it shall be deposited in the United States mail or delivered to the telegraph company in the County in which the principal office for the transaction of the business of the Corporation is located at least 48 hours prior to the time of the holding of the meeting. In case such notice is delivered personally or by facsimile as above provided, it shall be delivered at least 24 hours prior to the time of the holding of the meeting. Such mailing, telegraphing, delivery or facsimile transmission as above provided shall be due, legal and personal notice to such director. Except where otherwise required by law or by these Bylaws, notice of the purpose of a special meeting need not be given. Notice of any meeting of the Board shall not be required to be given to any director who is present at such meeting, except a director who shall attend such meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

Table of Contents

SECTION 3.10 Quorum and Manner of Acting.

Except as otherwise provided in these Bylaws, the Certificate of Incorporation or by applicable law, the presence of a majority of the authorized number of directors shall be required to constitute a quorum for the transaction of business at any meeting of the Board, and all matters shall be decided at any such meeting, a quorum being present, by the affirmative votes of a majority of the directors present. A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, provided any action taken is approved by at least a majority of the required quorum for such meeting. In the absence of a quorum, a majority of directors present at any meeting may adjourn the same from time to time until a quorum shall be present. Notice of any adjourned meeting need not be given. The directors shall act only as a Board, and the individual directors shall have no power as such.

SECTION 3.11 Action by Unanimous Written Consent.

Any action required or permitted to be taken at any meeting of the Board or of any committee thereof may be taken without a meeting if consent in writing is given thereto by all members of the Board or of such committee, as the case may be, and such consent is filed with the minutes of proceedings of the Board or of such committee.

SECTION 3.12 Compensation.

Directors, whether or not employees of the Corporation or any of its subsidiaries, may receive an annual fee for their services as directors in an amount fixed by resolution of the Board plus other compensation, including options to acquire capital stock of the Corporation, in an amount and of a type fixed by resolution of the Board, and, in addition, a fixed fee, with or without expenses of attendance, may be allowed by resolution of the Board for attendance at each meeting, including each meeting of a committee of the Board. Nothing herein contained shall be construed to preclude any director from serving the Corporation in any other capacity as an officer, agent, employee, or otherwise, and receiving compensation therefor.

SECTION 3.13 Committees.

The Board may, by resolution passed by a majority of the whole Board, designate one or more committees, each committee to consist of one or more of the directors of the Corporation. Any such committee, to the extent provided in the resolution of the Board and subject to any restrictions or limitations on the delegation of power and authority imposed by applicable law, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it. Any such committee shall keep written minutes of its meetings and report the same to the Board at the next regular meeting of the Board. Unless the Board or these Bylaws shall otherwise prescribe the manner of proceedings of any such committee, meetings of such committee may be regularly scheduled in advance and may be called at any time by the chairman of the committee or by any two members thereof; otherwise, the provisions of these Bylaws with respect to notice and conduct of meetings of the Board shall govern.

SECTION 3.14 Affiliated Transactions.

Notwithstanding any other provision of these Bylaws, each transaction, or, if an individual transaction constitutes a part of a series of transactions, each series of transactions, proposed to be entered into between the Corporation, on the one hand, and any affiliate of the Corporation, on the other hand, must be approved by the Board. For the purposes of this Section 3.14, (a) "affiliate" shall mean (i) any person that, directly or indirectly, controls or is controlled by or is under common control with the Corporation, (ii) any other person that owns, beneficially, directly or indirectly, twenty percent (20%) or more of the outstanding capital shares, shares or equity interests of the Corporation, or (iii)

any officer or director of the Corporation; (b) "person" shall mean and include individuals, corporations, general and limited partnerships, stock companies or associations, joint ventures, associations, companies, trusts, banks, trust companies, land trusts, business trusts or other entities and governments and agencies and political subdivisions thereof; and (c) "control" (including the correlative meanings of the terms "controlled by" and "under common control with"), as used with respect to any person, shall mean the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such person, through the ownership of voting securities, partnership interests or other equity interests.

Table of Contents

ARTICLE IV: OFFICERS

SECTION 4.1 Officers.

The officers of the Corporation shall be a Chief Executive Officer, a President, one or more Vice Presidents (the number thereof and their respective titles to be determined by the Board), a Secretary, a Chief Financial Officer, and such other officers as may be appointed at the discretion of the Board in accordance with the provisions of Section 4.3 hereof.

SECTION 4.2 Election.

The officers of the Corporation, except such officers as may be appointed or elected in accordance with the provisions of Sections 4.3 or 4.5 hereof, shall be chosen annually by the Board at the first meeting thereof after the annual meeting of stockholders, and each officer shall hold office until such officer shall resign or shall be removed or otherwise disqualified to serve, or until such officer's successor shall be elected and qualified.

SECTION 4.3 Other Officers.

In addition to the officers chosen annually by the Board at its first meeting, the Board also may appoint or elect such other officers as the business of the Corporation may require, each of whom shall have such authority and perform such duties as are provided in these Bylaws or as the Board may from time to time specify, and shall hold office until such officer shall resign or shall be removed or otherwise disqualified to serve, or until such officer's successor shall be elected and qualified.

SECTION 4.4 Removal and Resignation.

Except as provided by DGCL Section 141(k), any officer may be removed, either with or without cause, by resolution of the Board, at any regular or special meeting of the Board, or, except in case of an officer chosen by the Board, by any officer upon whom such power of removal may be conferred by the Board. Any officer or assistant may resign at any time by giving written notice of his resignation to the Board or the Secretary of the Corporation. Any such resignation shall take effect at the time specified therein, or, if the time is not specified, upon receipt thereof by the Board or the Secretary, as the case may be; and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

SECTION 4.5 Vacancies.

A vacancy in any office because of death, resignation, removal, disqualification or any other cause may be filled by the vote of the majority of the directors present at any meeting in which a quorum is present, or pursuant to Section 3.11 of these Bylaws.

SECTION 4.6 Chief Executive Officer.

The Chief Executive Officer shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairman of the Board has been appointed and is present. The Chief Executive Officer shall be the chief executive officer of the Corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and affairs of the Corporation. The Chief Executive Officer shall also perform such other duties and have such other powers as the Board of Directors may designate from time to time.

SECTION 4.7 President.

The President shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairman of the Board has been appointed and is present or, in the absence of the Chairman of the Board, the Chief Executive Officer has been appointed and is present. Subject to the provisions of these Bylaws and to the direction of the Board of Directors and Chief Executive Officer, the President shall have the responsibility for the general management and control of the business and affairs of the Corporation and shall perform all duties and have all powers which are commonly incident to the office of President or which are delegated to him by the Board of Directors. The President shall have the power to sign all stock certificates, contracts and other instruments of the Corporation which are authorized and shall have general supervision and direction of all the other officers, employees and agents of the corporation.

Table of Contents

SECTION 4.8 Vice President.

Each Vice President shall have such powers and perform such duties with respect to the administration of the business and affairs of the Corporation as are commonly incident to their office or as may from time to time be assigned to such Vice President by the Chairman of the Board, or the Board, or the Chief Executive Officer, or the President, or as may be prescribed by these Bylaws. In the absence or disability of the Chairman of the Board, the Chief Executive Officer and the President, the Vice Presidents in order of their rank as fixed by the Board, or if not ranked, the Vice President designated by the Board, shall perform all of the duties of the Chairman of the Board, and when so acting shall have all the powers of, and be subject to all the restrictions upon, the Chairman of the Board.

SECTION 4.9 Secretary.

(A) The Secretary shall attend all meetings of the stockholders and of the Board of Directors and shall record all acts and proceedings thereof in the minute book of the Corporation. The Secretary shall give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any committee thereof requiring notice. The Secretary shall perform all other duties given him in these Bylaws and other duties commonly incident to his office and shall also perform such other duties and have such other powers as the Board shall designate from time to time.

(B) The Secretary shall keep, or cause to be kept, at the principal office of the Corporation or such other place as the Board may order, a book of minutes of all meetings of directors and stockholders, with the time and place of holding, whether regular or special, and if special, how authorized and the notice thereof given, the names of those present at meetings of directors, the number of shares present or represented at meetings of stockholders, and the proceedings thereof.

(C) The Secretary shall keep, or cause to be kept, at the principal office of the Corporation's transfer agent, a share register, or a duplicate share register, showing the name of each stockholder, the number of shares of each class held by such stockholder, the number and date of certificates issued for such shares, and the number and date of cancellation of every certificate surrendered for cancellation.

SECTION 4.10 Chief Financial Officer.

The Chief Financial Officer shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the Chief Executive Officer. The Chief Financial Officer, subject to the order of the Board, shall have the custody of all funds and securities of the Corporation. The Chief Financial Officer shall perform other duties commonly incident to his office and shall also perform such other duties and have such other powers as the Board or the Chief Executive Officer shall designate from time to time.

Table of Contents

ARTICLE V: CORPORATE INSTRUMENTS, CHECKS,
DRAFTS, BANK ACCOUNTS, ETC.

SECTION 5.1 Execution of Corporate Instruments.

The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the Corporation the corporate name without limitation, or enter into contracts on behalf of the Corporation, except where otherwise provided by law or these Bylaws, and such execution or signature shall be binding upon the Corporation. Such authority may be general or confined to specific instances, and unless so authorized by the Board or by these Bylaws, no officer, agent, or employee shall have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or in any amount.

SECTION 5.2 Checks, Drafts, Etc.

All checks, drafts or other orders for payment of money, notes or other evidence of indebtedness, issued in the name of or payable to the Corporation, shall be signed or endorsed by such person or persons and in such manner as, from time to time, shall be determined by resolution of the Board. Each such officer, assistant, agent or attorney shall give such bond, if any, as the Board may require.

SECTION 5.3 Deposits.

All funds of the Corporation not otherwise employed shall be deposited from time to time to the credit of the Corporation in such banks, trust companies or other depositories as the Board may select, or as may be selected by any officer or officers, assistant or assistants, agent or agents, or attorney or attorneys of the Corporation to whom such power shall have been delegated by the Board. For the purpose of deposit and for the purpose of collection for the account of the Corporation, the Chairman of the Board, the Chief Executive Officer, the President, any Vice President (or any other officer or officers, assistant or assistants, agent or agents, or attorney or attorneys of the Corporation who shall from time to time be determined by the Board) may endorse, assign and deliver checks, drafts and other orders for the payment of money which are payable to the order of the Corporation.

SECTION 5.4 General and Special Bank Accounts.

The Board may from time to time authorize the opening and keeping of general and special bank accounts with such banks, trust companies or other depositories as the Board may select or as may be selected by any officer or officers, assistant or assistants, agent or agents, or attorney or attorneys of the Corporation to whom such power shall have been delegated by the Board. The Board may make such special rules and regulations with respect to such bank accounts, not inconsistent with the provisions of these Bylaws, as it may deem expedient.

Table of Contents

ARTICLE VI: SHARES AND THEIR TRANSFER

SECTION 6.1 Certificates of Stock.

Shares of the capital stock of the Corporation may be certificated or uncertificated, as provided under the General Corporation Law of the State of Delaware. Each stockholder, upon written request to the transfer agent or registrar of the Corporation, shall be entitled to a certificate of the capital stock of the Corporation in such form as may from time to time be prescribed by the Board of Directors. Such certificate shall be numbered in the order in which they shall be issued and shall bear the Corporation seal and shall be signed by the Chairman of the Board of the President or a Vice President and by the Treasurer or an Assistant Treasurer or the Secretary or an Assistant Secretary. The Corporation seal and the signatures by corporation officers may be facsimiles if the certificate manually countersigned by an authorized person on behalf of a transfer agent or registrar other than the Corporation or its employee. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed on such certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if such officer, transfer agent or registrar were such officer, transfer agent or registrar at the time of its issue. Every certificate for shares of stock which are subject to any restriction on transfer and every certificate issued when the Corporation is authorized to issue more than one class or series of stock shall contain such legend with respect thereto as is required by law. A record shall be kept of the respective names of the persons, firms or corporations owning the stock represented by such certificates, the number and class or series of shares represented by such certificates, respectively, and the respective dates thereof, and in the case of cancellation, the respective dates of cancellation.

SECTION 6.2. Transfers.

Subject to any restrictions on transfer and unless otherwise provided by the Board of Directors, shares of stock may be transferred only on the books of the Corporation, if such shares are certificated, by the surrender to the Corporation or its transfer agent of the certificate therefore properly endorsed or accompanied by a written assignment or power of attorney properly executed, with transfer stamps (if necessary) affixed, or upon proper instructions from the holder of uncertificated shares, in each case with such proof of the authenticity of signature as the Corporation or its transfer agent may reasonably require.

SECTION 6. 3. Record Holders.

Except as may otherwise be required by law, by the Certificate of Incorporation or by these By-laws, the Corporation shall be entitled to treat the record holder of stock as shown on its books as the owner of such stock for all purposes, including the payment of dividends and the right to vote with respect thereto, regardless of any transfer, pledge or other disposition of such stock, until the shares have been transferred on the books of the Corporation in accordance with the requirements of these Bylaws.

It shall be the duty of each stockholder to notify the Corporation of his, her or its post office address and any changes thereto.

SECTION 6.4. Record Date.

In order that the Corporation may determine the stockholders entitled to receive notice of or to vote at any meeting of stockholders or any adjournments thereof, or to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which, (i) with respect to any meeting of stockholders, shall be

not more than 60 nor less than 10 days (except as otherwise required by law) before the date of such meeting, (ii) with respect to corporate action without a meeting, shall be not more than 10 days after the date on which the resolution fixing the record date is adopted by the Board of Directors and (iii) with respect to any other lawful action, shall be not more than 60 days prior to such action. In such case, only stockholders of record on such record date shall be so entitled, notwithstanding any transfer of stock on the books of the Corporation after the record date.

If no record date is fixed: (i) the record date for determining stockholders entitled to receive notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held; (ii) the record date for determining stockholders entitled to express consent to corporate action in writing without a meeting, when no prior action by the Board of Directors is necessary, shall be the day on which the first written consent is expressed; and (iii) the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

SECTION 6. 5. Replacement of Certificates.

In case of the alleged loss, destruction or mutilation of a certificate of stock, a duplicate certificate may be issued in place thereof, upon such terms as the Board of Directors may prescribe; provided, however, that if such shares have ceased to be certificated, a new certificate shall be issued only upon written request to the transfer agent or registrar of the Corporation.

SECTION 6.6 Regulations.

The Board may make such rules and regulations as it may deem expedient, not inconsistent with these Bylaws, concerning the issue, transfer and registration of certificates for shares of the stock of the Corporation. It may appoint, or authorize any officer or officers to appoint, one or more transfer clerks or one or more transfer agents and one or more registrars, and may require all certificates for stock to bear the signature or signatures of any of them.

Table of Contents

ARTICLE VII: INDEMNIFICATION

SECTION 7.1 Indemnification of Directors and Officers.

To the fullest extent permitted by the Delaware General Corporation Law, as the same exists or may hereafter be amended (provided that the effect of any such amendment shall be prospective only) (the "Delaware Law"), a director of the Corporation shall not be liable to the Corporation or its stockholders for monetary damages for breach of his or her fiduciary duty as a director. The Corporation shall indemnify, in the manner and to the fullest extent permitted by the Delaware Law (but in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than permitted prior thereto), any person (or the estate of any person) who is or was a party to, or is threatened to be made a party to, any threatened, pending or completed action, suit or proceeding, whether or not by or in the right of the Corporation, and whether civil, criminal, administrative, investigative or otherwise, by reason of the fact that such person is or was a director or officer of the Corporation, or is or was serving at the request of the Corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise. The Corporation may, to the fullest extent permitted by the Delaware Law, purchase and maintain insurance on behalf of any such person against any liability which may be asserted against such person. The Corporation may create a trust fund, grant a security interest or use other means (including without limitation a letter of credit) to ensure the payment of such sums as may become necessary or desirable to effect the indemnification as provided herein. To the fullest extent permitted by the Delaware Law, the indemnification provided herein shall include expenses as incurred (including attorneys' fees), judgments, fines and amounts paid in settlement and any such expenses shall be paid by the Corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of the person seeking indemnification to repay such amounts if it is ultimately determined that he or she is not entitled to be indemnified. Notwithstanding the foregoing or any other provision of this Section 7.1, no advance shall be made by the Corporation if a determination is reasonably and promptly made by the Board by a majority vote of a quorum of disinterested Directors, or (if such a quorum is not obtainable or, even if obtainable, a quorum of disinterested Directors so directs) by independent legal counsel to the Corporation, that, based upon the facts known to the Board or such counsel at the time such determination is made, (a) the party seeking an advance acted in bad faith or deliberately breached his or her duty to the Corporation or its stockholders, and (b) as a result of such actions by the party seeking an advance, it is more likely than not that it will ultimately be determined that such party is not entitled to indemnification pursuant to the provisions of this Section 7.1. The indemnification provided herein shall not be deemed to limit the right of the Corporation to indemnify any other person for any such expenses to the fullest extent permitted by the Delaware Law, nor shall it be deemed exclusive of any other rights to which any person seeking indemnification from the Corporation may be entitled under any agreement, the Corporation's Bylaws, vote of stockholders or disinterested directors, or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office. The Corporation may, but only to the extent that the Board of Directors may (but shall not be obligated to) authorize from time to time, grant rights to indemnification and to the advancement of expenses to any employee or agent of the Corporation to the fullest extent of the provisions of this Section 7.1 as it applies to the indemnification and advancement of expenses of directors and officers of the Corporation.

SECTION 7.2 Indemnification of Employees and Agents.

Subject to Section 7.1, the Corporation may, but only to the extent that the Board may (but shall not be obligated to) authorize from time to time, grant rights to indemnification and to the advancement of expenses to any employee or agent of the Corporation to the fullest extent of the provisions of this Article VII as they apply to the indemnification and advancement of expenses of directors and officers of the Corporation.

SECTION 7.3 Enforcement of Indemnification.

The rights to indemnification and the advancement of expenses conferred above shall be contract rights. If a claim under this Article VII is not paid in full by the Corporation within 60 days after written claim has been received by the Corporation, except in the case of a claim for an advancement of expenses, in which case the applicable period shall be 20 days, the indemnitee may at any time thereafter bring suit against the Corporation to recover the unpaid amount of such claim. If successful in whole or in part in any such suit, or in a suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the indemnitee shall be entitled to be paid also the expenses of prosecuting or defending such suit. In (i) any suit brought by the indemnitee to enforce a right to indemnification hereunder (but not in a suit brought by the indemnitee to enforce a right to an advancement of expenses) it shall be a defense that, and (ii) any suit by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking the Corporation shall be entitled to recover such expenses upon a final adjudication that, the indemnitee has not met any applicable standard for indemnification set forth in the DGCL. Neither the failure of the Corporation (including its Board, independent legal counsel or stockholders) to have made a determination prior to the commencement of such suit that indemnification of the indemnitee is proper in the circumstances because the indemnitee has met the applicable standard of conduct set forth in the DGCL, nor an actual determination by the Corporation (including its Board, independent legal counsel or stockholders) that the indemnitee has not met such applicable standard of conduct, shall either create a presumption that the indemnitee has not met the applicable standard of conduct or, in the case of such a suit brought by the indemnitee, be a defense to such suit. In any suit brought by the indemnitee to enforce a right to indemnification or to an advancement of expenses hereunder, or by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the indemnitee is not entitled to be indemnified, or to such advancement of expenses, under this Article VII or otherwise shall be on the Corporation.

Table of Contents

ARTICLE VIII: MISCELLANEOUS

SECTION 8.1 Seal.

The Board shall adopt a corporate seal, which shall be in the form set forth in a resolution approved by the Board.

SECTION 8.2 Waiver of Notices.

Whenever notice is required to be given by these Bylaws or the Certificate of Incorporation or by law, the person entitled to said notice may waive such notice in writing, either before or after the time stated therein, and such waiver shall be deemed equivalent to notice.

SECTION 8.3 Amendments.

Except as otherwise provided herein, by law, or in the Certificate of Incorporation, these Bylaws or any of them may be altered, amended, repealed or rescinded and new Bylaws may be adopted by the Board or by the stockholders at any annual or special meeting of stockholders, provided that notice of such proposed alteration, amendment, repeal, recession or adoption is given in the notice of such meeting of stockholders.

Table of Contents

CERTIFICATE OF SECRETARY OF ADOPTION OF BYLAWS

I, the undersigned, do hereby certify:

That I am the Secretary of IR BioSciences Holdings,, Inc., a Delaware corporation, that the foregoing Bylaws, comprising sixteen pages, constitute the Bylaws of said corporation as duly adopted by the Board of Directors of the corporation on April 19, 2008.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of said corporation on this 29th day of April 2008.

By: /s/ Michelle R. Laroche

Table of Contents