REPLIDYNE INC
Form DEF 14A
April 19, 2007

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

Filed by the Registrant þ

Filed by a Party other than the Registrant o

Check the appropriate box:

o Preliminary Proxy Statement
o Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
þ Definitive Proxy Statement
o Definitive Additional Materials
o Soliciting Material Pursuant to §240.14a-12

Replidyne, Inc.
(Name of Registrant as Specified In Its Charter)

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

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þ No fee required.

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REPLIDYNE, INC.
1450 Infinite Drive
Louisville, CO 80027

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
To Be Held On May 10, 2007

Dear Stockholder:

You are cordially invited to attend the Annual Meeting of Stockholders of Replidyne, Inc., a Delaware corporation (the Company). The meeting will be held on Thursday, May 10, 2007 at 2:00 p.m. local time at 1450 Infinite Drive, Louisville, CO 80027 for the following purposes:

1. To elect two directors to hold office until the 2010 Annual Meeting of Stockholders.

2. To ratify the selection by the Audit Committee of the Board of Directors of KPMG LLP as independent auditors of the Company for its fiscal year ending December 31, 2007.

3. To conduct any other business properly brought before the meeting.

These items of business are more fully described in the Proxy Statement accompanying this Notice.

The record date for the Annual Meeting is March 30, 2007. Only stockholders of record at the close of business on that date may vote at the meeting or any adjournment thereof.

By Order of the Board of Directors

Nebojsa Janjic, Ph.D.
Secretary

Louisville, CO
April 19, 2007

You are cordially invited to attend the meeting in person. Whether or not you expect to attend the meeting, please complete, date, sign and return the enclosed proxy, or vote over the Internet as instructed in these materials, as promptly as possible in order to ensure your representation at the meeting. A return envelope (which is postage prepaid if mailed in the United States) is enclosed for your convenience. Even if you have voted by proxy, you may still vote in person if you attend the meeting. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to vote at the meeting, you must obtain a proxy issued in your name from that record holder.

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REPLIDYNE, INC.
1450 Infinite Drive
Louisville, CO 80027

PROXY STATEMENT
FOR THE 2007 ANNUAL MEETING OF STOCKHOLDERS

April 19, 2007

QUESTIONS AND ANSWERS ABOUT THIS PROXY MATERIAL AND VOTING

Why am I receiving these materials?

We have sent you this proxy statement and the enclosed proxy card because the Board of Directors of Replidyne, Inc. (sometimes referred to as the Company or Replidyne) is soliciting your proxy to vote at the 2007 Annual Meeting of Stockholders. You are invited to attend the annual meeting to vote on the proposals described in this proxy statement. However, you do not need to attend the meeting to vote your shares. Instead, you may simply complete, sign and return the enclosed proxy card, or follow the instructions below to submit your proxy on the Internet.

The Company intends to mail this proxy statement and accompanying proxy card on or about April 19, 2007 to all stockholders of record entitled to vote at the annual meeting.

Who can vote at the annual meeting?

Only stockholders of record at the close of business on March 30, 2007 will be entitled to vote at the annual meeting. On this record date, there were 27,010,506 shares of common stock outstanding and entitled to vote.

Stockholder of Record: Shares Registered in Your Name

If on March 30, 2007 your shares were registered directly in your name with Replidyne s transfer agent, American Stock Transfer & Trust Company, Inc., then you are a stockholder of record. As a stockholder of record, you may vote in person at the meeting or vote by proxy. Whether or not you plan to attend the meeting, we urge you to fill out and return the enclosed proxy card or vote by proxy on the Internet as instructed below to ensure your vote is counted.

Beneficial Owner: Shares Registered in the Name of a Broker or Bank

If on March 30, 2007 your shares were held, not in your name, but rather in an account at a brokerage firm, bank, dealer, or other similar organization, then you are the beneficial owner of shares held in street name and these proxy materials are being forwarded to you by that organization. The organization holding your account is considered to be the stockholder of record for purposes of voting at the annual meeting. As a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares in your account. You are also invited to attend the annual meeting. However, since you are not the stockholder of record, you may not vote your shares in person at the meeting unless you request and obtain a valid proxy from your broker or other agent.

What am I voting on?

There are two matters scheduled for a vote:

Election of two directors; and

Ratification of KPMG LLP as independent auditors of the Company for its fiscal year ending December 31, 2007.

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How do I vote?

You may either vote For all the nominees to the Board of Directors or you may Withhold your vote for any nominee you specify. For each of the other matters to be voted on, you may vote For or Against or abstain from voting. The procedures for voting are fairly simple:

Stockholder of Record: Shares Registered in Your Name

If you are a stockholder of record, you may vote in person at the annual meeting**,** vote by proxy using the enclosed proxy card, or vote by proxy on the Internet. Whether or not you plan to attend the meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the meeting and vote in person even if you have already voted by proxy.

To vote in person, come to the annual meeting and we will give you a ballot when you arrive.

To vote using the proxy card, simply complete, sign and date the enclosed proxy card and return it promptly in the envelope provided. If you return your signed proxy card to us before the annual meeting, we will vote your shares as you direct.

To vote on the Internet, go to http://www.voteproxy.com to complete an electronic proxy card. You will be asked to provide the company number and account number from the enclosed proxy card. Your vote must be received by 11:59 p.m., Eastern Standard Time, on May 9, 2007 to be counted.

Beneficial Owner: Shares Registered in the Name of Broker or Bank

If you are a beneficial owner of shares registered in the name of your broker, bank, or other agent, you should have received a proxy card and voting instructions with these proxy materials from that organization rather than from Replidyne. Simply complete and mail the proxy card to ensure that your vote is counted. Alternatively, you may vote over the Internet as instructed by your broker or bank. To vote in person at the annual meeting, you must obtain a valid proxy from your broker, bank, or other agent. Follow the instructions from your broker or bank included with these proxy materials, or contact your broker or bank to request a proxy form.

We provide Internet proxy voting to allow you to vote your shares on-line, with procedures designed to ensure the authenticity and correctness of your proxy vote instructions. However, please be aware that you must bear any costs associated with your Internet access, such as usage charges from Internet access providers and telephone companies.

How many votes do I have?

On each matter to be voted upon, you have one vote for each share of common stock you own as of March 30, 2007.

What if I return a proxy card but do not make specific choices?

If you return a signed and dated proxy card without marking any voting selections, your shares will be voted For the election of all two nominees for director and For the ratification of KPMG LLP as the independent auditors of the Company for the fiscal year ending December 31, 2007. If any other matter is properly presented at the meeting, your proxyholder (one of the individuals named on your proxy card) will vote your shares using his or her best judgment.

Who is paying for this proxy solicitation?

We will pay for the entire cost of soliciting proxies. In addition to these mailed proxy materials, our directors and employees may also solicit proxies in person, by telephone, or by other means of communication. Directors and employees will not be paid any additional compensation for soliciting proxies. We may also reimburse brokerage firms, banks and other agents for the cost of forwarding proxy materials to beneficial owners.

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What does it mean if I receive more than one proxy card?

If you receive more than one proxy card, your shares are registered in more than one name or are registered in different accounts. Please complete, sign and return **each** proxy card to ensure that all of your shares are voted.

Can I change my vote after submitting my proxy?

Yes. You can revoke your proxy at any time before the final vote at the meeting. If you are the record holder of your shares, you may revoke your proxy in any one of three ways:

You may submit another properly completed proxy card with a later date.

You may send a timely written notice that you are revoking your proxy to the attention of our Secretary, c/o Replidyne, Inc., 1450 Infinite Drive, Louisville, CO 80027.

You may attend the annual meeting and vote in person. Simply attending the meeting will not, by itself, revoke your proxy.

If your shares are held by your broker or bank as a nominee or agent, you should follow the instructions provided by your broker or bank.

When are stockholder proposals due for next year s annual meeting?

To be considered for inclusion in next year s proxy materials, your proposal must be submitted in writing by December 21, 2007, to the attention of our Secretary, c/o Replidyne, Inc., 1450 Infinite Drive, Louisville, CO 80027. If you wish to submit a proposal that is not to be included in next year s proxy materials or nominate a director, you must do so no earlier than January 11, 2008 and no later than February 10, 2008. You are also advised to review the Company s Bylaws, which contain additional requirements about advance notice of stockholder proposals and director nominations.

How are votes counted?

Votes will be counted by the inspector of election appointed for the meeting, who will separately count For and Withhold and, with respect to proposals other than the election of directors, Against votes, abstentions and broker non-votes. Abstentions will be counted towards the vote total for each proposal, and will have the same effect as Against votes. Broker non-votes have no effect and will not be counted towards the vote total for any proposal.

What are broker non-votes ?

Broker non-votes occur when a beneficial owner of shares held in street name does not give instructions to the broker or nominee holding the shares as to how to vote on matters deemed non-routine. Generally, if shares are held in street name, the beneficial owner of the shares is entitled to give voting instructions to the broker or nominee holding the shares. If the beneficial owner does not provide voting instructions, the broker or nominee can still vote the shares with respect to matters that are considered to be routine, but not with respect to non-routine matters. Under the rules and interpretations of the New York Stock Exchange (NYSE), non-routine matters are generally those involving a contest or a matter that may substantially affect the rights or privileges of shareholders, such as mergers or shareholder proposals.

How many votes are needed to approve each proposal?

For the election of directors, the two nominees receiving the most For votes (from the holders of votes of shares present in person or represented by proxy and entitled to vote on the election of directors) will be elected. Only votes For or Withheld will affect the outcome.

To be approved, Proposal No. 2, the ratification of the Company s independent auditors for the fiscal year ending December 31, 2007, must receive For votes from the holders of a majority of shares present and entitled to vote either in person or by proxy. If you Abstain from voting, it will have the same effect as an Against vote. Broker non-votes will have no effect.

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What is the quorum requirement?

A quorum of stockholders is necessary to hold a valid meeting. A quorum will be present if stockholders holding a majority of the outstanding shares are present at the meeting in person or represented by proxy. On the record date, there were 27,010,506 shares outstanding and entitled to vote. Thus, the holders of 13,505,254 shares must be present in person or represented by proxy at the meeting or by proxy to have a quorum.

Your shares will be counted towards the quorum only if you submit a valid proxy (or one is submitted on your behalf by your broker, bank or other nominee) or if you vote in person at the meeting. Abstentions and broker non-votes will be counted towards the quorum requirement. If there is no quorum, the chairman of the meeting or the holders of a majority of shares present at the meeting in person or represented by proxy may adjourn the meeting to another date.

How can I find out the results of the voting at the annual meeting?

Preliminary voting results will be announced at the annual meeting. Final voting results will be published in the Company s quarterly report on Form 10-Q for the second quarter of 2007.

Proposal 1

Election Of Directors

Replidyne s Board of Directors is divided into three classes. Each class consists, as nearly as possible, of one-third of the total number of directors, and each class has a three-year term. Vacancies on the Board may be filled only by persons elected by a majority of the remaining directors. A director elected by the Board to fill a vacancy in a class, including a vacancy created by an increase in the number of directors, shall serve for the remainder of the full term of that class and until the director s successor is elected and qualified.

The Board of Directors presently has eight members, all of whom were previously elected by the Board. As of the date of this year s annual meeting, Ralph E. Christoffersen, Ph.D. and Henry Wendt will resign as members of the Board. As of the date of this proxy statement, our Nominating and Corporate Governance Committee has not yet identified a candidate to fill the vacancy being created by Mr. Wendt s planned departure. There are two directors in the class whose term of office expires in 2007, Dr. Christoffersen and Christoper D. Earl, Ph.D. Dr. Earl is currently a director and will stand for reelection. The other nominee, Edward Brown, is not currently a director and was recommended to our Board by Henry Wendt, a non-management director, and the Board has recommended that Edward Brown replace Dr. Christoffersen to serve a three-year term expiring at the 2010 annual meeting. If elected at the annual meeting, each of these nominees would serve until the 2010 annual meeting and until his successor is elected and has qualified, or, if sooner, until the director s death, resignation or removal. It is the Company s policy to invite directors and nominees for director to attend the Annual Meeting. This is the first annual meeting of stockholders since our initial public offering in July 2006.

Directors are elected by a plurality of the votes of the holders of shares present in person or represented by proxy and entitled to vote on the election of directors. The two nominees receiving the highest number of affirmative votes will be elected. Shares represented by executed proxies will be voted, if authority to do so is not withheld, for the election of the two nominees named below. If any nominee becomes unavailable for election as a result of an unexpected occurrence, your shares will be voted for the election of a substitute nominee proposed by Replidyne s management. Each person nominated for election has agreed to serve if elected. Our management has no reason to believe that any nominee will be unable to serve.

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The following is a brief biography of each nominee and each director whose term will continue after the annual meeting.

Nominees for Election for a Three-year Term Expiring at the 2010 Annual Meeting

Christopher D. Earl, Ph.D.

Christopher D. Earl, Ph.D. is 51 years of age and has served as Director since September 2004. Dr. Earl is President and Chief Executive Officer of BIO Ventures for Global Health. From 1997 to 2005, he served as Managing Director at Perseus Capital and of Perseus-Soros Management, LLC, an affiliate of the Perseus-Soros BioPharmaceutical Fund, LP, a private equity fund. Prior to that, Dr. Earl was President and Chief Executive Officer of Avitech Diagnostics, Inc. and a General Partner of Plant Resources Venture Funds. Dr. Earl serves on the Board of Governing Trustees of the Jackson Laboratory. Dr. Earl holds a B.A. from the University of Pennsylvania and a Ph.D. from Harvard University.

Edward Brown

Edward Brown is 43 years of age and is a managing director and co-founder of HealthCare Investment Partners, a private equity fund focused on healthcare investments. Before HealthCare Investment Partners, Mr. Brown was a managing director in the healthcare group of Credit Suisse Group where he led the firm s west coast healthcare effort and was one of the senior partners responsible for the firm s global life sciences practice. Mr. Brown has over 20 years of experience as an investor and advisor in the healthcare industry. Mr. Brown graduated from Middlebury College, Phi Beta Kappa, with a B.A. degree in English and received his M.B.A. degree from UCLA. Mr. Brown also serves on the Board of Directors of Angiotech Pharmaceuticals and Occulus Innovative Sciences.

The Board Of Directors Recommends
A Vote In Favor Of Each Named Nominee.

Directors Continuing in Office Until the 2008 Annual Meeting

Daniel J. Mitchell

Daniel J. Mitchell is 50 years of age and has served as a Director since March 2002. Mr. Mitchell founded and is Manager of Sequel Venture Partners, L.L.C., a venture capital firm formed in January 1997. Prior to founding Sequel Venture Partners, Mr. Mitchell was a founder of Capital Health Venture Partners, a health care focused venture capital firm, from October 1986 and has been a General Partner since December 1992. Mr. Mitchell holds a B.S. from the University of Illinois and an M.B.A. from the University of California at Berkeley.

Geoffrey Duyk, M.D., Ph.D.

Geoffrey Duyk, M.D., Ph.D. is 48 years of age and has served as a Director since June 2004. Dr. Duyk is a partner at Texas Pacific Group Ventures. From 1996 to 2003, Dr. Duyk was President of Research & Development and a director of Exelixis Inc. From 1993 to 1996, he was one of the founding scientific staff at Millennium Pharmaceuticals. Prior thereto, Dr. Duyk was an Assistant Professor at Harvard Medical School in the Department of Genetics and Assistant Investigator of the Howard Hughes Medical Institute. Dr. Duyk holds a B.A. from Wesleyan University and a Ph.D. and M.D. from Case Western Reserve University.

Directors Continuing in Office Until the 2009 Annual Meeting

Kirk K. Calhoun

Kirk K. Calhoun is 63 years of age and has served as a Director since March 2006. Mr. Calhoun joined Ernst & Young, LLP, a public accounting firm, in 1965 and served as a partner of the firm from 1975 until his retirement in 2002. His responsibilities included both area management and serving clients in a variety of industries, including biotechnology. Mr. Calhoun is a Certified Public Accountant with a background in auditing and accounting. He is currently on the Board of Directors of Adams Respiratory Therapeutics, Inc., Abraxis Bioscience, Inc. and Aspreva

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Pharmaceuticals Corporation. Mr. Calhoun received a B.S. in Accounting from the University of Southern California.

Augustine Lawlor

Augustine Lawlor is 50 years of age and has served as a Director since March 2002. Mr. Lawlor has been a Managing Director of HealthCare Ventures LLC since 2000. Mr. Lawlor was previously Chief Operating Officer of LeukoSite, Inc. and has also served as a management consultant with KPMG Peat Marwick. Mr. Lawlor is a member of the Board of Directors of Human Genome Sciences Inc. Mr. Lawlor holds a B.A. from the University of New Hampshire and a M.P.P.M. from the School of Management at Yale University.

Kenneth J. Collins

Kenneth J. Collins is 60 years of age and has served as our President, Chief Executive Officer and a member of the board of directors since January 2002. From 1997 to 2001, Mr. Collins served as President of Pegasus Technology Ventures, a firm that advised and raised seed capital for early stage life sciences companies. From 1995 to 1996, Mr. Collins served as Chief Financial Officer and a member of the board of directors of Quark, Inc., a developer of desktop publishing software. Mr. Collins served as an Executive Vice President from 1992 to 1994 and Chief Financial Officer from 1983 to 1994 of Synergen, Inc., a biotechnology company. Mr. Collins holds a B.S. from the University of Notre Dame and an M.B.A. from the Harvard Business School.

INFORMATION REGARDING THE BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

Independence of The Board of Directors

As required under the Nasdaq National Market (Nasdaq) listing standards, a majority of the members of a listed company s Board of Directors must qualify as independent, as affirmatively determined by the Board of Directors. The Board consults with the Company s counsel to ensure that the Board s determinations are consistent with relevant securities and other laws and regulations regarding the definition of independent, including those set forth in pertinent listing standards of the Nasdaq, as in effect time to time.

Consistent with these considerations, after review of all relevant transactions or relationships between each director, or any of his family members, and the Company, its senior management and its independent auditors, the Board has affirmatively determined that the following seven directors are independent directors within the meaning of the applicable Nasdaq listing standards: Kirk K. Calhoun, Ralph E. Christoffersen, Ph.D., Geoffrey Duyk, M.D., Ph.D., Christopher D. Earl, Ph.D., Augustine Lawlor, Daniel J. Mitchell and Henry Wendt. Dr. Christoffersen will not stand for reelection at this year s annual meeting. Edward Brown, his proposed replacement, would be considered an independent director within the meaning of the applicable Nasdaq listing standard. Mr. Wendt will resign as a director effective as of the date of this year s annual meeting. In making this determination on independence, the Board found that none of the these directors or nominees for director had a material or other disqualifying relationship with the Company. Mr. Collins, the Company s President and Chief Executive Officer, is not an independent director by virtue of his employment with the Company.

MEETINGS OF THE BOARD OF DIRECTORS

The Board of Directors met 10 times during the last fiscal year. Each Board member attended 75% or more of the aggregate of the meetings of the Board and of the committees on which he served, held during the period for which he was a director or committee member.

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Information Regarding Committees of the Board of Directors

The Board has three committees: an Audit Committee, a Compensation Committee, and a Nominating and Corporate Governance Committee. The following table provides membership and meeting information for fiscal year 2006 for each of the Board committees:

Name	Audit	Compensation	Governance and Nominating
Kirk K. Calhoun	X*		
Ralph E. Christoffersen, Ph.D.			X
Geoffrey Duyk, M.D., Ph.D.		X	
Christopher D. Earl, Ph.D.	X		
Augustine Lawlor	X	X	
Daniel J. Mitchell		X*	X
Henry Wendt			X*
Total meetings in fiscal 2006	4	1	1

* Committee Chairperson

Below is a description of each committee of the Board of Directors. Each of the committees has authority to engage legal counsel or other experts or consultants, as it deems appropriate to carry out its responsibilities. The Board of Directors has determined that each member of each committee meets the applicable Nasdaq rules and regulations regarding independence and that each member is free of any relationship that would impair his individual exercise of independent judgment with regard to the Company.

Audit Committee

The Audit Committee of the Board of Directors was established by the Board in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934 to oversee the Company s corporate accounting and financial reporting processes and audits of its financial statements. For this purpose, the Audit Committee performs several functions. The Audit Committee evaluates the performance of and assesses the qualifications of the independent auditors; determines and approves the engagement of the independent auditors; determines whether to retain or terminate the existing independent auditors or to appoint and engage new independent auditors; reviews and approves the retention of the independent auditors to perform any proposed permissible non-audit services; monitors the rotation of partners of the independent auditors on the Company s audit engagement team as required by law; reviews and approves or rejects transactions between the company and any related persons; confers with management and the independent auditors regarding the effectiveness of internal controls over financial reporting; establishes procedures, as required under applicable law, for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters and the confidential and anonymous submission by employees of concerns regarding questionable accounting or auditing matters; and meets to review the company s annual audited financial statements and quarterly financial statements with management and the independent auditor, including reviewing the Company s disclosures under Management s Discussion and Analysis of Financial Condition and Results of Operations. The Audit Committee is composed of three directors: Messrs. Calhoun and Lawlor and Dr. Earl. The Audit Committee met four times during the fiscal year. The Audit Committee has adopted a written

charter that is available to stockholders on the Company s website at http://media.corporate-ir.net/media _ files/irol/18/189384/govdocs/audit.pdf.

The Board of Directors reviews the Nasdaq listing standards definition of independence for Audit Committee members on an annual basis and has determined that all members of the Company s Audit Committee are independent (as independence is currently defined in Rule 4350(d)(2)(A)(i) and (ii) of the Nasdaq listing standards). The Board of Directors has also determined that Mr. Calhoun qualifies as an audit committee financial expert, as defined in applicable SEC rules. The Board made a qualitative assessment of Mr. Calhoun s level of knowledge and experience based on a number of factors, including his formal education and experience with other public reporting companies.

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Report of the Audit Committee of the Board of Directors[1]

The Audit Committee of the Board of Directors (the Audit Committee) has been established for the purpose of overseeing the accounting and financial reporting processes of the Company, the systems of internal accounting and financial controls and audits of the Company s annual financial statements. Replidyne s Audit Committee is made up solely of independent directors, as defined in the Nasdaq rules, and it operates under a written charter adopted by the Board. The composition of the Audit Committee, the attributes of its members and its responsibilities, as reflected in its charter, are intended to be in accordance with applicable requirements for corporate audit committees. The Audit Committee reviews and assesses the adequacy of its charter on an annual basis. A copy of the Audit Committee s charter can be found on our corporate website at www.replidyne.com.

As stated above and described more fully in its charter, one of the primary purposes of the Audit Committee is to assist the Board in its general oversight of Replidyne s financial reporting, internal accounting and financial controls and audit functions. Management is responsible for the preparation, presentation and integrity of Replidyne s financial statements; accounting and financial reporting principles; internal controls; and procedures designed to ensure compliance with accounting standards, applicable laws and regulations. The Audit Committee has ultimate authority and responsibility to select, compensate, evaluate and, when appropriate, replace Replidyne s independent registered public accounting firm.

The Audit Committee members are not currently professional accountants or auditors, and, although the Audit Committee monitors the Company s independent registered public accounting firm, their functions are not intended to duplicate or to certify the activities of management and the independent registered public accounting firm, nor can the Audit Committee certify that the independent registered public accounting firm is independent under applicable rules. The Audit Committee serves a board-level oversight role, in which it provides advice, counsel and direction to management and the auditors on the basis of the information it receives, discussions with management and the auditors, and the experience of the Audit Committee s members in business, financial and accounting matters. The Audit Committee has the authority to engage its own outside advisers, including experts in particular areas of accounting, as it determines appropriate, apart from counsel or advisers hired by management.

The Audit Committee has an annual agenda that includes reviewing Replidyne s financial statements, internal controls and audit matters. The Audit Committee meets each interim quarter with the independent registered public accounting firm and management to review Replidyne s interim financial results before the publication of Replidyne s quarterly earnings press releases. The Audit Committee also meets annually with the independent registered public accounting firm and management to review Replidyne s annual financial results before the publication of Replidyne s annual earnings press release. Management s and the independent registered public accounting firm s presentations to and discussions with the Audit Committee cover various topics and events that may have significant financial impact and/or are the subject of discussions between management and the independent registered public accounting firm. In addition, the Audit Committee generally oversees Replidyne s internal compliance programs. The Audit Committee reviews and discusses with the Company s management and the independent registered public accounting firm their respective processes for assessing the effectiveness of internal controls over financial reporting, including any significant deficiencies or material weaknesses identified. In accordance with law, the Audit Committee is responsible for establishing procedures for the receipt, retention and treatment of complaints received by Replidyne regarding accounting, internal accounting controls or auditing matters, including the confidential, anonymous submission by Replidyne employees, received through established procedures, of concerns regarding questionable accounting or auditing matters.

Among other matters, the Audit Committee monitors the activities and performance of Replidyne s external auditors, including the audit scope, external audit fees, auditor independence matters and the extent to which the independent

registered public accounting firm may be retained to perform non-audit services. Replidyne s

[1] **The material in this report is not soliciting material, is not deemed filed with the Commission and is not to be incorporated by reference in any filing of the Company under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.**

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independent registered public accounting firm provides the Audit Committee with the written disclosures required by Independence Standards Board Standard No. 1, Independence Discussions with Audit Committees, annually and the Audit Committee discusses with the independent registered public accounting firm and management that firm s independence.

In accordance with the Sarbanes-Oxley Act, all services to be provided by the independent registered public accounting firm are subject to pre-approval by the Audit Committee. These include audit services, audit-related services, tax services and other services. The Sarbanes-Oxley Act prohibits an issuer from obtaining certain non-audit services from its auditing firm so as to avoid certain potential conflicts of interest; Replidyne has not in recent years obtained any of these services from KPMG LLP and Replidyne is able to obtain such services from other service providers at competitive rates. See Ratification of Selection of Independent Registered Public Accounting Firm for more information regarding fees paid to KPMG LLP in fiscal years 2006 and 2005.

The Audit Committee has reviewed and discussed the audited financial statements for the fiscal year end December 31, 2006 with management of the Company. The Audit Committee has discussed with the independent auditors the matters required to be discussed by the Statement on Auditing Standards No. 61, as amended (AICPA, *Professional Standards*, Vol. 1. AU section 380), as adopted by the Public Company Accounting Oversight Board (PCAOB) in Rule 3200T. The Audit Committee has also received the written disclosures and the letter from the independent accountants required by the Independence Standards Board Standard No. 1, (*Independence Discussions with Audit Committees*), as adopted by the PCAOB in Rule 3600T and has discussed with the independent accountants the independent accountant s independence.

Based on the foregoing, the Audit Committee has recommended to the Board of Directors that the audited financial statements be included in the Company s Annual Report in Form 10-K for the fiscal year ended 2006.

Mr. Calhoun (Chair)
Dr. Earl
Mr. Lawlor

Compensation Committee

The Compensation Committee is composed of three directors: Dr. Duyk and Messrs. Lawlor and Mitchell. All members of the Company s Compensation Committee are independent (as independence is currently defined in Rule 4200(a)(15) of the Nasdaq listing standards.) The Compensation Committee met one time during the fiscal year. The Compensation Committee has adopted a written charter that is available to stockholders on the Company s website at http://media.corporate-ir.net/media _ files/irol/18/189384/govdocs/compensation.pdf.

The Compensation Committee of the Board of Directors acts on behalf of the Board to review, recommend for adoption and oversee the Company s compensation strategy, policies, plans and programs, including: establishing corporate and individual performance objectives relevant to the compensation of the Company s executive officers and other senior management and evaluation of performance in light of these stated objectives; reviewing and approving the compensation and other terms of employment or service, including severance and change-in-control arrangements, of the Company s executive officers and other senior management; and administrating the Company s equity compensation plans, pension and profit-sharing plans, deferred compensation plans and other similar plan and programs. Commencing this year, the Compensation Committee also began to review with management the Company s Compensation Discussion and Analysis and to consider whether to recommend that it be included in proxy statements and other filings.

The policy of the Compensation Committee is to meet at least two times annually and with greater frequency if necessary. The Chair of the Compensation Committee, in consultation with the Chief Executive Officer and the head of Human Resources, is responsible for determining the meeting s agenda. From time to time, various members of management and other employees as well as outside advisors or consultants may be invited by the Compensation Committee to make presentations, provide financial or other background information or advice or otherwise participate in Compensation Committee meetings. The Chief Executive Officer may not participate in or be present during any deliberations or determinations of the Compensation Committee regarding his compensation

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or individual performance objectives. The charter of the Compensation Committee grants the Compensation Committee full access to all books, records, facilities and personnel of the Company, as well as authority to obtain, at the expense of the Company, advice and assistance from internal and external legal, accounting or other advisors and consultants and other external resources that the Compensation Committee considers necessary or appropriate in the performance of its duties. In particular, the Compensation Committee has the sole authority to retain compensation consultants to assist in its evaluation of executive and director compensation, including the authority to approve the consultant s reasonable fees and other retention terms.

In November 2006, the Compensation Committee and Company management engaged Radford Surveys and Consulting. The purpose of this engagement is for Radford Surveys and Consulting to assist management and the Compensation Committee in evolving Replidyne s compensation programs to support the Company s pay philosophy and align such philosophy with current market trends. In particular, Radford Surveys and Consulting will define a peer group and market competitors and use such groups to assess the degree to which Replidyne s current compensation programs and executive ownership levels align with market practices.

Under its charter, the Compensation Committee may form, and delegate authority to, subcommittees, as appropriate, including to grant stock awards under the Company s equity incentive plans. As provided in greater detail under Role of Executives in Establishing Compensation , the Compensation Committee has delegated to Mr. Collins the authority to grant long-term incentive awards to employees below the level of executive officer under guidelines set by the Compensation Committee.

The Compensation Committee anticipates making the most significant adjustments to annual compensation, determining bonus and equity awards and establishing new performance objectives at one or more meetings held during the first quarter of the year. Generally, the Compensation Committee s process comprises two related elements: the determination of compensation levels and the establishment of performance objectives for the current year. For executives other than the Chief Executive Officer, the Compensation Committee solicits and considers evaluations and recommendations submitted to the Committee by the Chief Executive Officer. In the case of the Chief Executive Officer, the evaluation of his performance is conducted by the Compensation Committee, which determines any adjustments to his compensation as well as awards to be granted. For all executives, as part of its deliberations, the Compensation Committee may review and consider, as appropriate, materials such as financial reports and projections, operational data, tax and accounting information, tally sheets that set forth the total compensation that may become payable to executives in various hypothetical scenarios, executive and director stock ownership information, company stock performance data, analyses of historical executive compensation levels and current Company-wide compensation levels, and recommendations of the Compensation Committee s compensation consultant, including analyses of executive compensation paid at other companies identified by the consultant.

In March 2007, the Compensation Committee approved the Replidyne, Inc. Variable Incentive Bonus Plan for Calendar Year 2007, a copy of which is filed as an exhibit to the Company s annual report on Form 10-K for the fiscal year ended December 31, 2006.

The specific determinations of the Compensation Committee with respect to executive compensation for fiscal year 2006 are described in greater detail in the Compensation Discussion and Analysis section of this proxy statement, as well as the narrative disclosure that accompanies the Summary Compensation Table and related tables in the Executive Compensation section of this proxy statement.

Compensation Committee Interlocks and Insider Participation

No member of our compensation committee has ever been an executive officer or employee of ours. None of our executive officers currently serves, or has served during the last completed fiscal year, on the compensation committee

or board of directors of any other entity that has one or more executive officers serving as a member of our board of directors or compensation committee. Prior to establishing the compensation committee, our full board of directors made decisions relating to compensation of our executive officers.

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Compensation Committee Report[2]

The Compensation Committee has reviewed and discussed with management the Compensation Discussion and Analysis (CD&A) contained in this proxy statement. Based on this review and discussion, the Compensation Committee has recommended to the Board of Directors that the CD&A be included in this proxy statement and incorporated into our Annual Report on Form 10-K for the fiscal year ended 2006.

Daniel J. Mitchell (Chair)
Geoffrey Duyk, M.D., Ph.D.
Augustine Lawlor

Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee of the Board of Directors is responsible for identifying, reviewing and evaluating candidates to serve as directors of the Company (consistent with criteria approved by the Board), reviewing and evaluating incumbent directors, recommending to the Board for selection candidates for election to the Board of Directors, making recommendations to the Board regarding the membership of the committees of the Board, assessing the performance of the Board, reviewing and recommending changes to Board compensation and developing a set of corporate governance principles for the Company. The Nominating and Corporate Governance Committee is currently composed of three directors: Dr. Christoffersen and Messrs. Mitchell and Wendt. Both Dr. Christoffersen and Mr. Wendt will resign as a director as of the date of this year s annual meeting and therefore as of such date will no longer serve on the Nominating and Corporate Governance Committee. Edward Brown, the proposed nominee at this year s annual meeting to replace Dr. Christoffersen, if elected by the stockholders as a director, will be made a member of the Nominating and Corporate Governance Committee. In addition, as of the date of this year s annual meeting, Dr. Duyk will be designated a member of the Nominating and Corporate Governance Committee and will be appointed chairperson. Edward Brown and Dr. Duyk are independent (as independence is currently defined in Rule 4200(a)(15) of the Nasdaq listing standards). The Nominating and Corporate Governance Committee met one time during the fiscal year. The Nominating and Corporate Governance Committee has adopted a written charter that is available to stockholders on the Company s website at http://media.corporate-ir.net/media _ files/irol/18/189384/govdocs/governance.pdf.

The Nominating and Corporate Governance Committee believes that candidates for director should have certain minimum qualifications, including having the highest personal integrity and ethics, having the ability to exercise sound business judgment, and having a reputation, both professional and personal, that are consistent with the image and reputation of the Company. The Nominating and Corporate Governance Committee also intends to consider such factors as possessing relevant expertise upon which to be able to offer advice and guidance to management, demonstrated excellence in his or her field, and being affiliated or formerly affiliated with major organizations, including scientific, business, government, educational and other non-profit institutions. However, the Nominating and Corporate Governance Committee retains the right to modify these qualifications from time to time. Candidates for director nominees are reviewed in the context of the current composition of the Board, the operating requirements of the Company and the long-term interests of stockholders. In conducting this assessment, the Nominating and Corporate Governance Committee considers diversity, skills and such other factors as it deems appropriate, given the current needs of the Board and the Company, to maintain a balance of knowledge, experience and capability. In the case of incumbent directors whose terms of office are set to expire, the Committee reviews such directors overall service to the Company during their term, including the number of meetings attended, level of participation, quality of performance, and any other relationships and transactions that might impair such directors independence. In the case of new director candidates, the Committee determines whether the nominee

[2] **The material in this report is not soliciting material , is furnished to, but not deemed filed with, the Commission and is not deemed to be incorporated by reference in any filing of the Company under the Securities Act or the Exchange Act, other than the Company s Annual Report on Form 10-K, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.**

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must be independent for Nasdaq purposes, which determination will be based upon applicable Nasdaq listing standards, applicable SEC rules and regulations and the advice of counsel, if necessary.

The Nominating and Corporate Governance Committee does not have a formal process for identifying nominees for director. Instead, it uses its network of contacts to identify potential candidates. The Committee may also engage, if it deems appropriate, a professional search firm. To date, the Nominating and Corporate Governance Committee has not paid a fee to any third party to assist in the process of identifying or evaluating director candidates. The Committee will conduct any appropriate and necessary inquiries into the backgrounds and qualifications of possible candidates after considering the function and needs of the Board. The Committee will meet to discuss and consider such candidates qualifications and then select a nominee for recommendation to the Board by majority vote.

The Nominating and Corporate Governance Committee will consider director candidates recommended by stockholders. The Nominating and Corporate Governance Committee does not intend to alter the manner in which it evaluates candidates, including the minimum criteria set forth above, based on whether or not the candidate was recommended by a stockholder. Stockholders who wish to recommend individuals for consideration by the Nominating and Corporate Governance Committee to become nominees for election to the Board may do so by delivering a written recommendation to the Chairman of the Nominating and Corporate Governance Committee at the following address: 1450 Infinite Dr., Louisville, Colorado 80027 at least 120 days prior to the anniversary date of the mailing of the Company s proxy statement for the last Annual Meeting of Stockholders. Submissions must include the full name of the proposed nominee, a description of the proposed nominee s business experience for at least the previous five years, complete biographical information, a description of the proposed nominee s qualifications as a director and a representation that the nominating stockholder is a beneficial or record owner of the Company s stock. Any such submission must be accompanied by the written consent of the proposed nominee to be named as a nominee and to serve as a director if elected.

Stockholder Communications With The Board Of Directors

The Company s Board has adopted a formal process by which stockholders may communicate with the Board or any of its directors. Stockholders who wish to communicate with the Board may do so by sending written communications addressed to the Secretary of the Company at Replidyne, Inc., Attn: Secretary, 1450 Infinite Drive, Louisville, CO 80027. All communications will be compiled by the Secretary of the Company and submitted to the Board or the individual directors on a periodic basis. These communications will be reviewed by one or more employees of the Company designated by the Board, who will determine whether they should be presented to the Board. The purpose of this screening is to allow the Board to avoid having to consider irrelevant or inappropriate communications (such as advertisements, solicitations and hostile communications). The screening procedures have been approved by a majority of the independent Directors of the Board. All communications directed to the Audit Committee in accordance with the Company s Open Door Policy for Reporting Complaints Regarding Accounting and Auditing Matters that relate to questionable accounting or auditing matters involving the Company will be promptly and directly forwarded to the Audit Committee.

Corporate Governance Guidelines

In April 2006, the Board of Directors documented the governance practices followed by the Company by adopting Corporate Governance Guidelines to assure that the Board will have the necessary authority and practices in place to review and evaluate the Company s business operations as needed and to make decisions that are independent of the Company s management. The guidelines are also intended to align the interests of directors and management with those of the Company s stockholders. The Corporate Governance Guidelines set forth the practices the Board intends to follow with respect to board composition and selection, board meetings and involvement of senior management, Chief Executive Officer succession planning, and board committees and compensation. The Corporate Governance

Guidelines may be viewed on our website at www.replidyne.com under the heading Investor Relations, sub-heading Investor Information.

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Proposal 2

Ratification Of Selection Of Independent Auditors

The Audit Committee of the Board of Directors has selected KPMG LLP as the Company s independent auditors for the fiscal year ending December 31, 2007 and has further directed that management submit the selection of independent auditors for ratification by the stockholders at the Annual Meeting. KPMG LLP was engaged as the Company s independent registered public accounting firm as of April 12, 2005 and has audited the Company s financial statements for 2006, 2005, 2004 and 2003. Representatives of KPMG LLP are expected to be present at the Annual Meeting. They will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions.

Effective April 12, 2005, KPMG LLP was engaged as the Company s independent registered public accounting firm and replaced PricewaterhouseCoopers LLP, who were dismissed as the Company s independent registered public accounting firm. The decision to change independent registered public accounting firms was approved by the Audit Committee of the Board of Directors. PricewaterhouseCoopers LLP reported on the Company s financial statements as of and for the years ended December 31, 2002 and 2003, and cumulatively for the period from December 6, 2000 (date of inception) to December 31, 2003. Except for an explanatory paragraph expressing significant doubt about the ability of Replidyne to continue as a going concern, the report of PricewaterhouseCoopers LLP on those financial statements did not contain an adverse opinion or disclaimer of opinion and was not qualified or modified as to uncertainty, audit scope or accounting principles. During the years ended December 31, 2002 and 2003 and through April 12, 2005, the Company did not have any disagreements with PricewaterhouseCoopers LLP on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to their satisfaction, would have caused them to make reference thereto in connection with their report on the financial statements for such years. PricewaterhouseCoopers LLP has not audited or reported on any financial statements or information included in the Company s annual report on Form 10-K for the fiscal year ended December 31, 2006. Prior to retaining KPMG LLP, the Company had not consulted with KPMG LLP on items that involved its accounting principles or the form of audit opinion to be issued on the Company s financial statements. PricewaterhouseCoopers LLP s letter to the Securities and Exchange Commission stating its agreement with the statements in this paragraph was filed as an exhibit to the Company s registration statement on Form S-1 (File No. 333-133021) declared effective June 28, 2006.

Neither the Company s Bylaws nor other governing documents or law require stockholder ratification of the selection of KPMG LLP as the Company s independent auditors. However, the Audit Committee of the Board is submitting the selection of KPMG LLP to the stockholders for ratification as a matter of good corporate practice. If the stockholders fail to ratify the selection, the Audit Committee of the Board will reconsider whether or not to retain that firm. Even if the selection is ratified, the Audit Committee of the Board in its discretion may direct the appointment of different independent auditors at any time during the year if they determine that such a change would be in the best interests of the Company and its stockholders.

The affirmative vote of the holders of a majority of the shares present in person or represented by proxy and entitled to vote at the annual meeting will be required to ratify the selection of KPMG LLP. Abstentions will be counted toward the tabulation of votes cast on proposals presented to the stockholders and will have the same effect as negative votes. Broker non-votes are counted towards a quorum, but are not counted for any purpose in determining whether this matter has been approved.

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principal accountant fees and services

The following table represents aggregate fees billed to the Company for the fiscal years ended December 31, 2005 and December 31, 2006, by KPMG LLP, the Company s principal accountant.

	Fiscal Year Ended	
	2006	2005
Audit Fees(1)	$ 634,000	$ 65,000
Tax Fees(2)	33,000	5,000
Total Fees	$ 667,000	$ 70,000

(1) Audit fees include fees for services related to our registration statement in connection with our initial public offering.

(2) Tax fees for include fees for tax annual compliance and advice specifically related to our collaboration agreement with Forest Laboratories, stock options and limitations on our net operating loss carryforwards.

The Audit Committee has determined that the rendering of the services described above by KPMG LLP is compatible with maintaining the independence of the independent registered public accounting firm.

All fees described above were approved by the Audit Committee, except with respect to $2,400 paid to KPMG LLP for research and consultation regarding the treatment of stock options that was subsequently approved by the Audit Committee under the de minimis exception to the requirement for pre-approval of permitted non-audit services.

Pre-Approval Policies and Procedures

Under the Audit Committee Charter, the Audit Committee shall pre-approve all auditing services and permitted non-audit services (including the fees and terms thereof) to be performed for the Company by our independent accountant, KPMG LLP (subject to de minimis exceptions for non-audit services described in Section 10A(i)(1)(B) of the 1934 Act which are approved by the Audit Committee prior to completion of the audit). The Audit Committee may form and delegate authority to subcommittees consisting of one or more members when appropriate, including the authority to grant pre-approvals of audit and permitted non-audit services, provided that decisions of such subcommittee to grant pre-approvals shall be presented to the full Audit Committee at its next scheduled meeting.

The Board Of Directors Recommends
A Vote In Favor Of Proposal 2

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Security Ownership Of

Certain Beneficial Owners And Management

The following table sets forth certain information regarding the ownership of the Company s common stock as of March 15, 2007 by: (i) each director and nominee for director; (ii) each of the executive officers named in the Summary Compensation Table; (iii) all executive officers and directors of the Company as a group; and (iv) all those known by the Company to be beneficial owners of more than five percent of its common stock.

	Beneficial Ownership(1)	
Beneficial Owner	**Number of Shares**	**Percent of Total**
D. E. Shaw Meniscus Portfolios, L.L.C. 120 W. 45th Street, Tower 45, 39th Floor New York, NY 10036(2)	1,624,301	6.02%
Duquesne Capital Management LLC and its affiliates 2579 Washington Road, Suite 322 Pittsburgh, PA 15241(3)	1,383,918	5.13%
HealthCare Ventures VI, L.P. 44 Nassau Street Princeton, NJ 08542(4)	4,359,069	16.15%
Morgenthaler Partners VII, L.P. 4430 Arapahoe Avenue, Suite 220 Boulder, CO 80303(5)(18)	2,344,546	8.69%
OZ Master Fund, Ltd. 9 West 57th Street, 39th Floor New York, NY 10019(6)	1,684,772	6.24%
Perseus-Soros BioPharmaceutical Fund, LP 888 Seventh Avenue, 30th Floor New York, NY 10106(7)	1,487,808	5.51%
Sequel Limited Partnership III and its affiliates 4430 Arapahoe Avenue, Suite 220 Boulder, CO 80303(8)(18)	1,459,459	5.41%
TPG Biotechnology Partners, L.P. and its affiliates 301 Commerce Street, Suite 3300 Fort Worth, TX 76102(9)	2,752,913	10.20%
Edward Brown	0	*
Kenneth J. Collins (10)(18)	584,553	2.17%
Kirk K. Calhoun (11)(18)	7,703	*
Ralph E. Christoffersen(5)(18)	2,344,546	8.69%
Geoffrey Duyk, M.D., Ph.D.(9)	2,752,913	10.20%
Christopher D. Earl, Ph.D.	0	*
Augustine Lawlor(4)	4,359,069	16.15%
Daniel J. Mitchell(8)(12)(18)	1,476,130	5.47%
Roger M. Echols, M.D. (13)(18)	114,825	*
Nebojsa Janjic, Ph.D. (14)(18)	420,743	1.56%
Peter W. Letendre, Pharm.D. (15)(18)	119,580	*

Donald J. Morrissey, Jr. (16)(18)	104,876	*
Mark Smith (17)(18)	47,580	*
All executive officers and directors as a group (13 persons)(18)	1,416,531	5.82%

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* Less than one percent.

(1) This table is based upon information supplied by officers, directors and principal stockholders and Schedules 13D and 13G filed with the Securities and Exchange Commission (the SEC). Unless otherwise indicated in the footnotes to this table and subject to community property laws where applicable, the Company believes that each of the stockholders named in this table has sole voting and investment power with respect to the shares indicated as beneficially owned. Applicable percentages are based on 26,991,439 shares outstanding on March 15, 2007, adjusted as required by rules promulgated by the SEC.

(2) By virtue of David E. Shaw s position as President and sole shareholder of D. E. Shaw & Co., Inc., which is the general partner of D. E. Shaw & Co., L.P., which is the managing member and investment adviser of D. E. Shaw Valence Portfolios, L.L.C. and the investment adviser of D. E. Shaw Meniscus Portfolios, L.L.C., and by virtue of David E. Shaw s position as President and sole shareholder of D. E. Shaw & Co. II, Inc., which is the managing member of D. E. Shaw & Co., L.L.C., which is the managing member of D. E. Shaw Meniscus Portfolios, L.L.C., David E. Shaw may be deemed to have the shared power to vote or direct the vote of, and the shared power to dispose or direct the disposition of, the these shares and, therefore, David E. Shaw may be deemed to be the beneficial owner of such shares. David E. Shaw disclaims beneficial ownership of such shares.

(3) Includes 1,097,509 shares held by Windmill Master Fund, L.P., 240,681 shares held by Juggernaut Fund, L.P. and 45,728 shares held by Iron City Fund, Ltd. The Chairman and Chief Executive Officer of Duquesne Capital Management LLC, Stanley F. Druckenmiller, possesses voting and investment authority over these shares.

(4) Includes 746,707 shares held by HealthCare Ventures VIII, L.P. HealthCare Ventures VI, L.P. disclaims beneficial ownership of those shares owned by HealthCare Ventures VIII, L.P. Mr. Lawlor is a general partner of HealthCare Partners VI, L.P. which is the general partner of HealthCare Ventures VI, L.P. Mr. Lawlor shares voting and investment authority over the shares held by HealthCare Ventures VI, L.P. with Eric Aguiar, James Cavanaugh, William Crouse, John Littlechild, Christopher Mirabelli and Harold Werner. Mr. Lawlor is also a managing director of HealthCare Partners VIII LLC which is the general partner of HealthCare Partners VIII, L.P. which is the general partner of HealthCare Ventures VIII, L.P. Mr. Lawlor shares voting and investment authority over the shares held by HealthCare Ventures VIII, L.P. with Eric Aguiar, James Cavanaugh, John Littlechild, Christopher Mirabelli and Harold Werner. Mr. Lawlor disclaims beneficial ownership of these shares except to the extent of his proportionate pecuniary interest in these securities.

(5) Includes 16,311 shares that Morgenthaler Partners VII, L.P. has the right to acquire from us within 60 days of March 15, 2007 pursuant to the exercise of outstanding warrants. Morgenthaler Management Partners VII, LLC is the managing general partner of Morgenthaler Partners VII, L.P. The members of Morgenthaler Management Partners VII, LLC, Ralph E. Christoffersen, Robert C. Bellas, Jr., Greg E. Blonder, James W. Broderick, Daniel F. Farrar, Andrew S. Lanza, Theodore A. Laufik, Paul H. Levine, Gary R. Little, John D. Lutsi, Gary J. Morgenthaler, Robert D. Pavey, G. Gary Shaffer, Alfred J.V. Stanley and Peter G. Taft, share voting and investment authority over these shares. Dr. Christoffersen disclaims beneficial ownership of these shares except to the extent of his proportionate pecuniary interest in these securities.

(6) Daniel S. Och is the Senior Managing Member of OZ Management, L.L.C., the investment manager of OZ Master Fund, Ltd. As such, Mr. Och may be deemed to exercise voting and investment discretion of the shares held by OZ Master Fund, Ltd.

(7) Perseus-Soros Partners, LLC is the general partner of the Perseus-Soros BioPharmaceutical Fund, LP. Perseus BioTech Fund Partners, LLC and SFM Participation, L.P. are the managing members of Perseus-Soros Partners, LLC. Perseuspur, LLC is the managing member of Perseus BioTech Fund Partners, LLC. Frank Pearl is the sole member of Perseuspur, LLC and in such capacity may be deemed a beneficial owner of securities held for the account of the Perseus-Soros BioPharmaceutical Fund, LP. SFM AH, LLC is the general partner of SFM Participation, L.P. The sole managing member of SFM AH, LLC is Soros Fund Management LLC. George Soros is the Chairman of Soros Fund Management LLC and in such capacity may be deemed a beneficial owner of securities held for the account of the Perseus-Soros BioPharmaceutical Fund, LP.

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(8) Includes 39,240 shares held by Sequel Entrepreneurs Fund III, L.P. Also includes 8,154 shares that Sequel Limited Partnership III and Sequel Entrepreneurs Fund III, L.P. have the right to acquire from us within 60 days of March 15, 2007 pursuant to the exercise of outstanding warrants. Sequel Ventures Partners III, L.L.C. is the general partner of Sequel Limited Partnership III and Sequel Entrepreneurs Fund III, L.P. The managers of Sequel Ventures Partners III, L.L.C., Daniel Mitchell, Timothy Connor, Thomas Washing, John Greff and Kinney Johnson, share voting and investment authority over these shares. Mr. Mitchell disclaims beneficial ownership of these shares except to the extent of his proportionate pecuniary interest in these securities.

(9) Includes 825,873 shares held by TPG Ventures, L.P. Tarrant Advisors, Inc. (Tarrant) is the general partner of TPG Ventures Professionals, L.P., which is the managing member of TPG Ventures Holdings, L.L.C., which is the sole member of each of TPG Ventures Advisors, L.L.C. and TPG Biotechnology Advisors, L.L.C. TPG Ventures Advisors, L.L.C. is the general partner of TPG Ventures GenPar, L.P., which is the general partner of TPG Ventures, L.P. (TPG Ventures). TPG Biotechnology Advisors, L.L.C. is the general partner of TPG Biotechnology GenPar, L.P., which is the general partner of TPG Biotechnology Partners, L.P. (TPG Biotech, and together with TPG Ventures, the TPG Funds. Because of Tarrant s relationship to the TPG Funds, Tarrant may be deemed to beneficially own such shares. David Bonderman and James G. Coulter are the sole shareholders Tarrant and therefore may be deemed to beneficially own these shares. Dr. Duyk is Managing Director at Texas Pacific Group Ventures and disclaims beneficial ownership of these shares except to the extent of his proportionate pecuniary interest in these securities.

(10) Includes 118,951 unvested shares which are subject to a right of repurchase in our favor as of May 14, 2007, 54,377 shares Mr. Collins has the right to acquire within 60 days of March 15, 2007 through the exercise of vested options, and 25,488 shares held by Ryan D. Collins and 25,488 shares held by Brendan C. Collins, of which Mr. Collins is custodian.

(11) Includes 7,703 shares Mr. Calhoun has the right to acquire within 60 days of March 15, 2007 through the exercise of vested options.

(12) Includes 16,671 shares held by The Daniel J. Mitchell Trust, of which Daniel Mitchell is Trustee.

(13) Includes 27,868 shares Dr. Echols has the right to acquire within 60 days of March 15, 2007 through the exercise of vested options.

(14) Includes 74,769 unvested shares which are subject to right of repurchase in our favor as of May 14, 2007 and 23,110 shares Mr. Janjic has the right to acquire within 60 days of March 15, 2007 through the exercise of vested options.

(15) Includes 117,080 shares Dr. Letendre has the right to acquire within 60 days of March 15, 2007 through the exercise of vested options.

(16) Includes 49,618 shares Mr. Morrissey has the right to acquire within 60 days of March 15, 2007 through the exercise of vested options.

(17) Includes 47,580 shares Mr. Smith has the right to acquire within 60 days of March 15, 2007 through the exercise of vested options.

(18)

Includes shares, options and warrants described in the notes above, as applicable to our directors and named executive officers. Includes an aggregate of 193,720 shares subject to a repurchase option in favor of us and an aggregate of 327,336 additional shares subject to vesting conditions of unexercised stock options that vest within 60 days of March 15, 2007 held by our directors and named executive officers.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 (the 1934 Act) requires the Company s directors and executive officers, and persons who own more than ten percent of a registered class of the Company s equity securities, to file with the SEC initial reports of ownership and reports of changes in ownership of common stock and other equity securities of the Company. Officers, directors and greater than ten percent stockholders are required by SEC regulation to furnish the Company with copies of all Section 16(a) forms they file.

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To the Company s knowledge, based solely on a review of the copies of such reports furnished to the Company and written representations that no other reports were required, during the fiscal year ended December 31, 2006, all Section 16(a) filing requirements applicable to its officers, directors and greater than ten percent beneficial owners were complied with.

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

The following table provides certain information with respect to all of the Company s equity compensation plans in effect as of December 31, 2006:

Equity Compensation Plan Information

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 Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))(1) (c)
Equity compensation plans approved by security holders	2,067,825	$ 4.10	3,979,339(2)
Equity compensation plans not approved by security holders(3)	53,012	$ 5.47	0
Total	2,120,837		3,979,339(2)

(1) Subject to approval by our Board of Directors of such increase by no later than March 31st of each year, the number of shares of common stock reserved for issuance under the 2006 Equity Incentive Plan, as amended (the EIP) will increase, effective as of April 1st, from April 1, 2007 through and including April 1, 2016, by the lesser of (a) 5% of the total number of shares of common stock outstanding on December 31st of the preceding calendar year or (b) 1,325,448 shares, or such lesser amount as determined by the Board. In March 2007, the board increased the share reserve under the EIP by 809,375 shares (constituting three percent (3%) of the total number of shares of Common Stock outstanding on December 31, 2006). Subject to approval by our Board of Directors of such increase by no later than March 31st of each year, on April 1st of each year for ten years, beginning on April 1, 2007, through and including April 1, 2016, the number of shares of common stock reserved for issuance under the 2006 Employee Stock Purchase Plan (ESPP) will be increased by the lesser of (i) 1% of our outstanding shares on December 31st of the prior year or (ii) 101,957 shares of common stock, or such lesser amount approved by the Board of Directors. In March 2007, the board determined not to increase the share reserve under the ESPP at that time.

(2) Includes 3,716,949 shares that remain available for issuance under the EIP and 262,390 shares that remain available for future purchase under the ESPP.

(3) Represents the aggregate number of shares issuable pursuant to the exercise of outstanding warrants to purchase our common stock. Descriptions of such warrants are contained in note 9 of the footnotes to the consolidated financial statements contained in the Company s Annual Report on Form 10-K, filed with the SEC on March 27, 2007.

Executive Compensation

Compensation Discussion and Analysis

Overview of Compensation Program and Philosophy

Replidyne s compensation program is intended to meet four principal objectives: (1) attract, motivate and retain talent at all levels of the Company with the skills to help build an agile organization responsive to changes in the business, (2) motivate employees to stretch their capabilities and individual contributions to achieve and exceed company objectives, (3) provide equity compensation to align actions and decisions with shareholder value

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creation; and (4) create a direct link between the Company s performance, individual contribution and rewards. To meet these objectives, Replidyne has adopted the following overriding philosophy:

We will pay compensation that is competitive with the practices of other comparable biotechnology and life sciences companies; and

We will pay for performance by:

setting challenging performance goals for our officers rewarded through a short-term incentive bonus plan that is based upon achievement of these goals; and

providing significant long-term incentives in the form of stock options, in order to align the interests of our officers with those of our shareholders and to retain the leadership ability necessary to increase long-term shareholder value.

The above philosophy guides the Compensation Committee (the Committee) in assessing the proper allocation between long-term compensation, current cash compensation, and short-term bonus compensation. Other considerations include Replidyne s business objectives, its fiduciary and corporate responsibilities (including internal equity considerations and affordability), competitive practices and trends, and regulatory requirements.

In determining the particular elements of compensation that will be used to implement Replidyne s overall compensation philosophy, the Committee takes into consideration a number of factors related to Replidyne s performance, such as financial measures, product development milestones, clinical and regulatory milestones and achievement of business development objectives, as well as competitive practices among our peer group.

Replidyne s executive compensation program is overseen and administered by the Committee, which is comprised entirely of independent directors as determined in accordance with various Nasdaq, Securities and Exchange Commission and Internal Revenue Code rules. The Committee operates under a written charter adopted by our Board. A copy of the charter is available at *http://www.replidyne.com/investorrelations.*

Compensation Consultant

The Committee has the authority to engage its own independent advisors to assist in carrying out its responsibility and has done so. In November 2006, Ms. Linda Amuso, a representative of Radford Surveys and Consulting, a business unit of AON, was selected by Daniel Mitchell, the Chairman of the Committee, to be the independent compensation consultant to the Committee to assess our 2007 executive compensation program.

The independent compensation consultant advises the Committee on all of the principal aspects of executive compensation, including base salaries and annual and long-term incentives. In her capacity as an independent compensation consultant on executive compensation, Ms. Amuso reports to the Committee rather than to management, although Ms. Amuso has met with management for purposes of gathering information on proposals that management may make to the Committee. The Committee is free to replace the independent compensation consultant or hire additional consultants at any time. Ms. Amuso does not provide any other services to Replidyne and receives compensation only with respect to the services provided to the Committee.

Role of Executives in Establishing Compensation

The Committee on occasion meets with Replidyne s President and Chief Executive Officer, Mr. Collins, to obtain recommendations with respect to Company compensation programs, practices and packages for executives, other

employees and directors. Mr. Collins makes recommendations to the Committee on the base salary, bonus targets and equity compensation for the executive committee which is comprised of Dr. Roger Echols (Chief Medical Officer), Dr. Peter Letendre (Chief Commercial Officer), Dr. Nebojsa Janjic (Chief Scientific Officer), Mr. Mark Smith (Chief Financial Officer), Mr. Donald Morrissey (Senior Vice President, Corporate Development) and Ms. Jill Clark (Senior Human Resources executive), that reports directly to him. The Committee considers, but is not bound to, Mr. Collins recommendations with respect to executive compensation.

Mr. Collins attends some of the Committee s meetings, but the Committee also holds executive sessions not attended by any members of management or non-independent directors. The Committee discusses Mr. Collins

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compensation package with him, but makes decisions with respect to Mr. Collins compensation without him present. The Committee has the ultimate authority to make decisions with respect to the compensation of our named executive officers. The Committee has delegated to Mr. Collins the authority to grant long-term incentive awards to employees below the level of executive officer under guidelines set by the Committee, which guidelines set maximum grant amounts based on the employee s title. Mr. Collins generally grants options and causes the paperwork for such options to be presented to employees on their first day of employment with Replidyne. Such paperwork includes the name of the employee, the number of stock options being awarded, the vesting schedule for the award and the exercise price, which is the closing price for the previous day as quoted by Nasdaq. Mr. Collins is provided documentation on the employee s first day of employment that includes his or her name, the number of stock options to be awarded based on the guidelines The Committee also has authorized Mr. Collins to make salary adjustments and short-term incentive decisions, such as bonus awards, for all employees other than members of the executive committee that includes our named executive officers under guidelines approved by the Committee. The Committee has not delegated any of its authority with respect to the compensation of our named executive officers.

Elements of Compensation

There are four major elements that comprise Replidyne s compensation program: (i) base salary; (ii) annual incentive bonuses; (iii) long-term incentives, such as stock option awards; and (iv) retirement benefits provided under a 401(k) plan. Replidyne has selected these elements because each is considered useful and/or necessary to meet one or more of the principal objectives of our compensation policy. For instance, base salary and bonus target percentage are set with the goal of attracting employees and adequately compensating and rewarding them for the time spent and the services they perform. Our equity programs are geared toward providing incentives and rewards for the achievement of long-term business objectives and retaining key talent. Replidyne believes that these elements of compensation, when combined, are effective, and will continue to be effective, in achieving the objectives of our compensation program.

Replidyne has employment agreements with each of its executive officers that include severance and change in control benefits. These agreements are discussed below under the section entitled Employment Agreements with the Chief Executive Officer and other Named Executives.

The Committee reviewed the compensation program for 2006 and 2007, including each of the above elements. In setting compensation levels for a particular executive, the Committee takes into consideration the proposed compensation package as a whole and each element individually, as well as their expected future contributions to our business.

Benchmarking

Replidyne makes base salaries and bonuses a significant portion of the executive compensation package in order to remain competitive in attracting and retaining executive talent. Bonuses are also paid in order to motivate the achievement of the Company s business goals. The Committee determined each officer s target total annual cash compensation (salary and bonuses) for fiscal year 2007 after reviewing similar compensation information from a group of 16 companies. This review occurred in December 2006. The peer group included a broad range of companies in the biotechnology and life sciences industries with whom Replidyne competes for executive talent and consisted of the following companies:

ACADIA Pharmaceuticals
Arena Pharmaceuticals
Coley Pharmaceutical Group
CombinatoRx
Cubist Pharmaceuticals
Cytokinetics
Dynavax Technologies
Genomic Health

CoTherix	Idenix Pharmaceuticals
Metabasis Therapeutics	Pharmion
Somaxon Pharmaceuticals	Tercica
Trubion	XenoPort

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Data on the compensation practices of the above-mentioned peer group generally is gathered through searches of publicly available information, including publicly available databases. Publicly available information does not typically include information regarding target cash compensation. Ms. Amuso used the 2006 Radford Biotechnology Executive Compensation survey to benchmark target cash compensation levels against the above peer group. Peer group data is gathered with respect to base salary, bonus targets and stock options awards. It does not include deferred compensation benefits or generally available benefits, such as 401(k) plans or health care coverage, which was addressed separately by Ms. Amuso.

Replidyne s goal is to target total cash compensation, comprised of base salary and bonuses, at the median level (the 50th percentile) among its peer group. Long term equity incentives are targeted at the market s 50th to 75th percentiles. In determining base salary, the Committee also considers other factors such as job performance, skill set, prior experience, the executive s time in his or her position, external pressures to attract and retain talent, and market conditions generally. Positioning total cash compensation at the 50th percentile of peer companies assists Replidyne in controlling fixed costs. Targeting long term compensation at the 50th to 75th percentile provides for a higher long term incentive compensation opportunity, offers appropriate alignment of executives and employees to Company and shareholder goals and provides executives and employees with a potential upside gain commensurate with the risk inherent to working for an early stage biotechnology company. For non-executive employees, base pay and target total cash compensation are analyzed by management to determine variances in our compensation targets compared to peer companies using the combination of publicly available information and survey data as described above. Mr. Collins also uses the market data in making his recommendations to the Committee for his direct reports.

Base Salary

For fiscal 2006, after taking into consideration the above compensation targets and Mr. Collins recommendations, the Committee determined the base salaries of each of the named executive officers identified in the Summary Compensation Table. In April 2006, we entered into employment agreements with each of Kenneth Collins, Roger M. Echols, M.D., Peter Letendre, Pharm.D., Nebojsa Janjic, Ph.D. and Mark Smith providing for the payment of base salary in the amount of $350,000, $345,000, $295,000, $275,000 and $280,000 per annum, respectively. Each executive s base salary is subject to annual review and adjustment.

For fiscal 2007, in accordance with the recommendations of Mr. Collins, the Committee maintained the base salaries of each of the named executive officers named in the Summary Compensation Table at the same amounts as for 2006.

Annual Incentive Opportunities

Payment of bonus amounts, and therefore total cash compensation, depends on the achievement of specified performance goals. Achievement of the targeted goals would result in total cash compensation for fiscal 2006 at approximately the targeted 50th percentile of Replidyne s peer group. There was no defined minimum level of corporate performance for payment of bonuses and executives could achieve up to 150% of bonus for performance in excess of target levels. The Committee believes it is appropriate to provide for this range of bonus performance to enable Replidyne to attract and retain key personnel and to motivate our executives to meet Replidyne s business goals. For fiscal 2006, Mr. Collins made recommendations to the Committee with respect to target bonus amounts, expressed as a percentage of base salary, for each of the named executive officers, other than himself. These recommended bonus amounts were evaluated against established corporate goals and, other than for Mr. Collins, the executive s individual performance.

Bonuses are paid based on the Board of Directors assessment of achievement versus established company goals that the Board of Directors set at the beginning of the fiscal year. The Board of Directors establishes a bonus formula that is applied to the achieved performance, as assessed by them. The bonus formula is based on the anticipated difficulty

and relative importance of achieving the performance goals. Accordingly, the bonuses paid for any given fiscal year will vary depending on actual performance. To help achieve Replidyne s goal of retaining key talent, an executive must remain an employee through the end of the fiscal year in order to be eligible for any bonus under the bonus plan that relates to that fiscal year. Bonuses are payable in cash.

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2006 Executive Bonuses. In 2006, Replidyne maintained an annual incentive bonus program for senior executives to encourage and award achievement of Replidyne s business goals and to assist Replidyne in attracting and retaining executives by offering an opportunity to earn a competitive level of compensation. Based on these and the objectives described above, the Board of Directors developed and approved specific company performance targets that for executives other than Mr. Collins were combined with individual performance goals for use during fiscal 2006. Our named executive officers (Mr. Collins, Dr. Echols, Dr. Janjic, Dr. Letendre and Mr. Smith) participated in this annual incentive bonus program during fiscal 2006. Mr. Collins bonus was based solely on the achievement of the approved specific company performance targets. During fiscal 2006, the bonus program for each of named executive officers, including Mr. Collins, was described generally in their individual employment agreements.

The Company objectives established by the Board of Directors that were used to calculate the company performance measurements for calculation of executive bonuses in 2006 were as follows: development of faropenem medoxomil (52.5%), completion of the initial public offering (20%), achievement of organization development goals (7.5%), achievement of established milestones within the REP8839 product development program (7.5%) and achievement of established milestones within other preclinical development programs (12.5%). To provide further incentive to our executives to exceed established company goals, specific targets related to acceleration of the faropenem adult and pediatric and REP8839 clinical development plans, completion of the initial public offering at certain price per share targets and certain business development activities were identified for 2006 that, if met, could result in a 120% bonus payout versus target bonus levels. The following table summarizes target award multipliers for each of our named executive officers expressed as a percentage of base salary as well as the proportion of each executives individual bonus that was calculated based on achieving corporate and individual targets:

Named Executive Officer	Position	Target Award Multiplier	Corporate	Individual
Kenneth J. Collins	Chief Executive Officer	50%	100%	%
Mark L. Smith	Chief Financial Officer	30%	80%	20%
Roger M. Echols, M.D.	Chief Medical Officer	30%	80%	20%
Nebojsa Janjic, Ph.D.	Chief Scientific Officer	30%	80%	20%
Peter W. Letendre, Pharm.D	Chief Commercial Officer	40%	80%	20%

For fiscal 2006, the Committee compared Replidyne s actual performance to the targeted performance as established by the Board of Directors in early fiscal 2006, and applied the fiscal 2006 bonus formulae. For fiscal 2006, company wide objectives were assessed to have been met to 62% and, on average, individual goals were assessed to have been met to 100%. Bonuses paid to our named executive officers under the Bonus Plan for fiscal 2006 were as follows:

Named Executive Officer	Position	Amount ($)
Kenneth J. Collins	Chief Executive Officer	$ 108,500
Mark L. Smith	Chief Financial Officer	$ 60,144
Roger M. Echols, M.D.	Chief Medical Officer	$ 69,966
Nebojsa Janjic, Ph.D.	Chief Scientific Officer	$ 57,420
Peter W. Letendre, Pharm.D	Chief Commercial Officer	$ 84,488

2007 Variable Incentive Bonus Plan. In March 2007, the Company adopted the Variable Incentive Bonus Plan (the Plan) under which bonuses will be calculated and paid to our executives, including our named executive officers.

The purpose of the Plan is to promote the interests of the Company and its shareholders by rewarding company executives based upon the level of achievement of financial, business and other performance objectives established in accordance with the Plan. Executives serving on the executive committee are eligible to participate in the Plan. To receive a bonus, an executive must have become eligible to participate in the Plan prior to October 1st of the applicable fiscal year and must be on the Company s payroll on the last day of the fiscal year.

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Bonus awards for each fiscal year shall be determined based on the level of achievement of corporate and individual objectives. Each fiscal year, the President and Chief Executive Officer will develop a list of corporate objectives that include financial, business and other performance objectives that will be used to calculate the corporate portion of the bonus calculation. These objectives are subject to the approval of the Board of Directors. After approval of the corporate objectives by the Board of Directors, the President and Chief Executive Officer, in conjunction with the individual executives, will develop individual objectives for the year that are consistent with and support the corporate objectives or are otherwise intended to contribute to the success of Replidyne. Individual objectives for each executive will vary. Bonus awards for each executive shall be weighted between corporate objectives and individual objectives based on the executive s position within Replidyne. The weighting will be reviewed annually and may be adjusted by the Committee as it deems appropriate. The weighting for 2007 will be as follows:

Position	Corporate	Individual
President and Chief Executive Officer	100%	
Chief Commercial Officer	80%	20%
Chief Scientific Officer	80%	20%
Chief Medical Officer	80%	20%
Chief Financial Officer	80%	20%
Senior Vice President	75%	25%
Vice President	75%	25%
Executive Director	60%	40%

Target bonus awards for each executive will be determined by applying a target award multiplier to the executive s base salary in effect at the end of the fiscal year. The target award multipliers will be reviewed annually and may be adjusted by the Committee as it deems appropriate. The target award multipliers for 2007 will be as follows:

Position	Target Award Multiplier
President and Chief Executive Officer	50%
Chief Commercial Officer	40%
Chief Scientific Officer	40%
Chief Medical Officer	40%
Chief Financial Officer	40%
Senior Vice President	35%
Vice President	30%
Executive Director	30%

As soon as practicable after the end of each fiscal year, the Committee shall determine the bonus amount for each executive by determining (i) the performance multiplier for the corporate component of the executive s bonus awards based on the Committee s assessment of the Company s performance against corporate objectives for the fiscal year (the Corporate Performance Multiplier), and (ii) the performance multiplier for the individual component of each executive s bonus award based on the Committee s assessment (which may be based on the recommendation of the President and Chief Executive Officer) of the executive s performance against his or her individual objectives for the fiscal year. The same Corporate Performance Multiplier shall be used for all named executive officers and all other participating executives under the Plan for any particular fiscal year. If the Committee determines that corporate or

individual performance for the fiscal year exceeded objectives or was excellent in view of prevailing conditions, the Committee may approve corporate or individual performance multipliers up to 150%, respectively.

Notwithstanding any other provision of the Plan, the Committee with respect to any named executive officer s bonus, or the President and Chief Executive Officer with respect to non-named executive officer s bonus, shall have

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the authority, in their sole discretion and in such circumstances as they may deem appropriate, to approve any adjustments to a participant s bonus with respect to any fiscal year.

Long-Term Incentive Compensation

Replidyne provides long-term incentive compensation through awards of stock options that generally vest over four years. Replidyne s equity compensation program is intended to align the interests of our officers with those of our stockholders by creating an incentive for our officers to maximize stockholder value. The equity compensation program also is designed to encourage our officers to remain employed with Replidyne despite delays in the development of our lead product candidate, faropenem medoxomil and other short term uncertainties. Replidyne targets the value of its equity awards to be in the 50th to 75th percentiles of the peer group mentioned above, based on the information gathered from publicly available sources.

Equity-based incentives are granted to our employees, including our officers, under Replidyne s approved Equity Incentive Plan. The Committee has granted equity awards at its scheduled meetings or by unanimous written consent throughout 2006. Grants approved during scheduled meetings become effective and are priced as of the date of approval or a predetermined future date (for example, new hire grants are effective as of the later of the date of approval or the newly hired employee s start date). Grants approved by unanimous written consent become effective and are priced as of the date the last signature is obtained or as of a predetermined future date. Stock option grants have a per share exercise price equal to the fair market value of Replidyne s common stock on the grant date. Options typically vest 25% on the anniversary of the grant date and then monthly over the subsequent 36 months. Stock options typically have a ten-year term.

The Committee has not granted, nor does it intend in the future to grant, equity compensation awards to executives in anticipation of the release of material nonpublic information that is likely to result in changes to the price of Replidyne common stock. Similarly, the Committee has not timed, nor does it intend in the future to time, the release of material nonpublic information based on equity award grant dates. Also, because equity compensation awards typically vest over a four-year period, the value to recipients of any immediate increase in the price of Replidyne s stock following a grant will be attenuated.

Our Committee regularly monitors the environment in which Replidyne operates and makes changes to our equity compensation program to help us meet our goals, including achieving long-term shareholder value. In order to continue to attract and retain highly skilled employees, the Board of Directors approved Replidyne s equity compensation program for fiscal 2006 that was designed to reward our employees for their hard work and commitment to the long-term success and growth of the Company. Replidyne granted stock options because they can be an effective tool for meeting Replidyne s compensation goal of increasing long-term stockholder value by tying the value of the stock options to Replidyne s performance in the future. Employees are able to profit from stock options only if Replidyne s stock price increases in value over the stock option s exercise price. Replidyne believes the options that were granted provide effective incentives to option holders to achieve increases in the value of Replidyne s stock.

The number of options our Committee grants to each officer and the vesting schedule for each grant is determined based on a variety of factors, including market data collected regarding the equity grant ranges for the peer companies listed above and Replidyne s goal to award grants in line with the 50th to 75th percentile of this group and the performance of each executive as assessed by Mr. Collins. Mr. Collins assesses the performance of each member of the executive committee that reports to him based on a number of factors, including the individual s accomplishments during the prior fiscal year. For fiscal 2006, the Committee accepted Mr. Collins recommendations with respect to stock options granted to each of Dr. s Echols, Letendre and Janjic and Mr. Smith.

In February 2006, stock options were granted to all employees based on the review of Board of Directors. The Board of Directors considered the above-mentioned factors as well as retention of key employees, including our named executive officers, for anticipated strategic activities including completion of a collaboration agreement with Forest Laboratories and ongoing development of faropenem medoxomil for adult and pediatric indications. Total stock option grants to employees, including our named executive officers, in February 2006 in conjunction with the

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February Board of Directors meeting, were 851,000. Within this total stock options grant, the following stock option grants were made to our named executive officers:

Named Executive Officer	Options Granted in February 2006
Kenneth Collins	326,263
Roger Echols, M.D.	65,251
Peter Letendre, Pharm.D	65,251
Nebojsa Janjic, Ph.D.	138,661

The above stock options generally vest 25% at the completion of the first year of service following grant and 1/48 of the total grant per month thereafter such that full vesting occurs over four years. However, within the total stock options granted to Mr. Collins, Dr. Echols, Dr. Letendre and Dr. Janjic, respectively, options in the amounts of 163,132, 32,626, 32,626 and 69,331 vest upon the earlier of our quoted stock price equaling at least $18.39 or the vesting schedule described above. In March 2006, Mr. Smith was granted 163,131 stock options at the then fair market value in connection with his accepting the position of Chief Financial Officer. All options granted to Mr. Smith at his date of hire vest 25% upon completion of one year s service and 1/48 per month thereafter until fully vested. All stock options granted during 2006, other than the grants described above in February 2006 (which were approved by the Board of Directors), were approved at a meeting of the Committee or through unanimous written consent of Committee if a meeting was not scheduled.

Employee stock options granted by Replidyne are generally structured to qualify as incentive stock options (ISOs). Under current tax regulations, Replidyne does not receive a tax deduction for the issuance, exercise or disposition of ISOs if the employee meets certain holding requirements.

In March 2007 (after the end of fiscal 2006), the Committee granted options to our named executives and to all other eligible employees. Grants to our named executive officers were intended to retain and motivate them to meet our long term objectives including the further development of faropenem medoxomil for adult and pediatric indications and the identification of a collaboration partner to replace Forest Laboratories for this program. The number of stock options granted to our named executive officers in March 2007 recognized in part that the base salaries for fiscal year 2007 for each of our named executive officers were held to 2006 levels. Grants to all eligible employees other than the executive committee totaled 457,726. Of this total, 324,291 were allocated to employees based on a formula approved by the Committee that considered individual performance and an employee s level within the Company and 133,435 were allocated to certain employees in anticipation of their individual contributions to meeting the long term goals of Replidyne. The following table summarizes stock option grants to each of our named executive officers in March 2007:

Named Executive Officer	Options Granted in March 2007
Kenneth Collins	100,000
Roger Echols, M.D.	90,000
Peter Letendre, Pharm.D.	90,000
Nebojsa Janjic, Ph.D.	90,000
Mark Smith	90,000

Retirement Benefits under the 401(k) Plan, Executive Perquisites and Generally Available Benefit Programs

In fiscal 2006, the executive officers were eligible to receive health care coverage that is generally available to other Replidyne employees. In addition, employees at the level of associate director and above receive a base of four weeks vacation time as compared to three weeks vacation time typically provided to other Replidyne employees. Additional vacation time is awarded following the completion of five years service with the Company.

Replidyne maintains a tax-qualified 401(k) Plan, which provides for broad-based employee participation. Under the 401(k) Plan, all Replidyne employees are eligible to receive matching contributions from Replidyne. The matching contribution for the 401(k) Plan year 2006 was implemented October 31, 2006 at the level of $0.50 for

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each dollar of a participant s pretax contributions up to a maximum of $2,000 and was calculated and paid on a payroll-by-payroll basis subject to applicable Federal limits.

Replidyne also offers a number of other benefits to the named executive officers pursuant to benefit programs that provide for broad-based employee participation. These benefits programs include the employee stock purchase plan, medical, dental and vision insurance, long-term and short-term disability insurance, life and accidental death and dismemberment insurance, health and dependent care flexible spending accounts, business travel insurance, and relocation programs and services. Many employees are also eligible for variable pay under the incentive plans described above.

The 401(k) Plan and other generally available benefit programs allow Replidyne to remain competitive for employee talent, and Replidyne believes that the availability of the benefit programs generally enhances employee productivity and loyalty to Replidyne. The main objectives of Replidyne s benefits programs are to give our employees access to quality healthcare, financial protection from unforeseen events, assistance in achieving retirement financial goals and enhanced health and productivity, in full compliance with applicable legal requirements. These generally available benefits typically do not specifically factor into decisions regarding an individual executive s total compensation or equity award package.

On an annual basis, Replidyne compares its overall benefits programs against our peers, using survey data. Replidyne generally targets its overall benefits programs in the 50th percentile of this peer group, which Replidyne believes allows us to remain competitive in attracting and retaining talent. We also evaluate the competitiveness of our 401(k) Plan as related to similar plans of our peer group members by analyzing the dollar value to an employee and the dollar cost to Replidyne for the benefits under the applicable plan using a standard population of employees. We analyze changes to our benefits programs in light of the overall objectives of the program, including the effectiveness of the retention and incentive features of such programs and our targeted percentile range.

Employment Agreements with the Chief Executive Officer and other Named Executives

We have entered into employment agreements with each of the named executive officers providing for the payment of base salary, eligibility for bonus and other generally available benefits, all as described above. Each executive s base salary is subject to annual review and adjustment. Under the employment agreements, the employee s eligibility to receive an annual performance bonus is based upon the employee s achievement of milestones and objectives established by us, as determined by our Board of Directors in its sole discretion.

The employment agreements provide that we may terminate the employee at any time with or without cause. However, if the employee s employment is terminated without cause or terminated by the employee for good reason, then the employee shall be entitled to receive a severance package consisting of:

- salary continuation for a period of 12 months from the date of termination; and
- reimbursement for the cost of continued medical insurance coverage through the end of this 12 month period or, if earlier, the date on which the employee obtains alternative group health insurance.

Upon a change in control of Replidyne, each of the employment agreements provide that the exectutive shall be entitled to acceleration of vesting of 50% of the executive s outstanding unvested options to purchase our common stock. If the executive s employment is terminated without cause or terminated by the executive for good reason within one month before or 13 months following a change of control, then the employee shall be entitled to the following additional benefits:

salary continuation for a period of 12 months (or 18 months with respect to Mr. Collins and Dr. Janjic) from the date of termination;

reimbursement for the cost of continued medical insurance coverage through the end of this 12 month period (or 18 month period with respect to Mr. Collins and Dr. Janjic) or if earlier, the date on which the employee obtains alternative group health insurance; and

acceleration of vesting of all of the executive s outstanding unvested options to purchase our common stock.

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In addition, if Mr. Collin s employment is terminated without cause or terminated by him for good reason within one month before or 13 months following a change of control of us, then he would be entitled to payment of a bonus equal to the average of his annual bonus for the two years prior to such termination.

Termination without cause severance compensation is provided to executives in order to maintain flexibility to make changes in senior management if such a change is in the Company s and stockholders best interests. As each executive is bound by non-compete and non-solicitation provisions covering one year after termination, we have mutually agreed to severance compensation prior to any such termination event.

Also, in the normal course of business, the Company may engage in discussions with other firms about collaborations, licensing, partnerships and potential merger and acquisition transactions. Change in control severance compensation is provided to promote the ability of our senior executives to act in the best interest of our stockholders while considering such opportunities, even though they could be terminated as a result of a transaction.

Summary Compensation Table

The following table shows for the fiscal year ended December 31, 2006, compensation awarded to or paid to, or earned by, the Company s Chief Executive Officer, Chief Financial Officer and its three other most highly compensated executive officers at December 31, 2006 (the Named Executive Officers).

Summary Compensation Table for Fiscal 2006

Name and Principal Position (a)	Year (b)	Salary ($)(1) (c)	Bonus ($) (d)	Stock Awards ($) (e)	Option Awards ($)(2) (f)	Non-Equity Incentive Plan Compensation ($)(3) (g)	Change in Pension Value and Nonqualified Deferred Compensation Earnings ($) (h)	All Other Compensation ($)(4) (i)	Total ($) (j)
Kenneth J. Collins President and Chief Executive Officer	2006	$ 350,000	$ 0	$ 0	$ 198,028	$ 108,500	$ 0	$ 0	$ 656,528
Roger M. Echols, M.D., Chief Medical Officer	2006	$ 345,000	$ 0	$ 0	$ 39,606	$ 69,966	$ 0	$ 0	$ 454,572
Peter W. Letendre, Pharm.D., Chief Commercial Officer	2006	$ 295,000	$ 0	$ 0	$ 39,606	$ 84,488	$ 0	$ 0	$ 419,094
Nebojsa Janjic, Ph.D., Chief Scientific Officer and Secretary	2006	$ 275,000	$ 0	$ 0	$ 84,162	$ 57,420	$ 0	$ 0	$ 416,582
Mark L. Smith	2006	$ 233,330	$ 0	$ 0	$ 157,054	$ 60,144	$ 0	$ 208,837(5)	$ 659,365

Chief Financial Officer

(1) In April 2006, we entered into employment agreements with each of Kenneth Collins, Roger M. Echols, M.D., Peter Letendre, Pharm.D., Nebojsa Janjic, Ph.D. and Mark Smith providing for the payment of base salary in the amount of $350,000, $345,000, $295,000, $275,000 and $280,000 per annum, respectively. Each executive s base salary is subject to annual review and adjustment. For fiscal year 2007, in accordance with the recommendations of Mr. Collins, the Compensation Committee maintained the base salaries of each of the named executive officers at the same amounts as for 2006.

(2) See our Annual Report on Form 10-K for the fiscal year ended December 31, 2006, Note 2 to the financial statements and the discussion under Management s Discussion and Analysis of Financial Condition and Results of Operations , for a discussion of the valuation of these option awards.

(3) The corporate objectives established by the Board of Directors that were used to calculate the company performance measurements for calculation of executive bonuses in 2006 were as follows: development of faropenem medoxomil (52.5%), completion of the initial public offering (20%), achievement of organization development goals (7.5%), achievement of established milestones within the REP8839 product development

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program (7.5%) and achievement of established milestones within other preclinical development programs (12.5%). For fiscal 2006, the Compensation Committee compared Replidyne s actual performance to the targeted performance as established by the Board of Directors in early fiscal 2006, and applied the fiscal 2006 bonus formulae. For fiscal 2006, company wide objectives were assessed to have been met to 62% and, on average, individual goals were assessed to have been met to 100%. Using these parameters, individual bonus amounts earned by each executive were then determined using the target award multipliers for each of our named executives expressed as a percentage of base salary as well as the proportion of each executive s individual bonus that was calculated based on achieving corporate versus individual targets.

(4) As permitted by rules promulgated by the Securities and Exchange Commission, no amounts are shown in this column if the aggregate amount of compensation related to perquisites and other personal benefits received by a Named Executive Officer does not exceed $10,000 for the applicable year.

(5) Represents reimbursement of relocation and temporary housing costs to Mr. Smith and a tax gross-up payment of $73,963 related to the reimbursement of such costs.

Grants of Plan-Based Awards

The following table shows for the fiscal year ended December 31, 2006, certain information regarding grants of plan-based awards to the Named Executive Officers:

Grants of Plan-Based Awards in Fiscal 2006

Name (a)	Grant Date (b)	Estimated Possible Payouts Under Non-Equity Incentive Plan Awards(1) Threshold ($)(c)	Target ($)(d)	Maximum ($)(e)	Estimated Future Payouts Under Equity Incentive Plan Awards(2) Threshold (#)(f)	Target (#)(g)	Maximum (#)(h)	All Other Stock Awards: Number of Shares of Stock or Units (#)(i)	All Other Option Awards: Number of Securities Underlying Options (#)(j)	Exercise or Base Price of Option Awards ($/Sh) (k)	Grant Date Fair Value of Stock and Option Awards ($)(l)
Kenneth J. Collins	1/19/06	$ 0	$ 175,000	$ 262,500	$ 0	$ 0	326,263	$ 0	$ 0	$ 3.19	$ 452,266
Nebojsa Janjic	1/19/06	$ 0	$ 82,500	$ 123,750	$ 0	$ 0	138,661	$ 0	$ 0	$ 3.19	$ 192,213
Roger M. Echols	1/19/06	$ 0	$ 103,500	$ 155,250	$ 0	$ 0	65,251	$ 0	$ 0	$ 3.19	$ 90,453
Peter W. Letendre	1/19/06	$ 0	$ 118,000	$ 177,000	$ 0	$ 0	65,251	$ 0	$ 0	$ 3.19	$ 90,453
Mark L. Smith	3/9/06	$ 0	$ 84,000	$ 126,000	$ 0	$ 0	163,131	$ 0	$ 0	$ 5.20	$ 308,849

(1) All of the non-equity incentive plan awards were granted under an annual incentive bonus program for senior executives in 2006, as more fully described in the Compensation Disclosure and Analysis above. Therefore, the relevant bonus awards have already been earned as of the end of the fiscal year, and actual earned amounts as finally determined under the 2006 plan are reported in the Summary Compensation Table under column (g) . The bonus amounts actually awarded for 2006 were all less than the Target amounts in the above table because company wide objectives for fiscal year 2006 were assessed to have been met at only 62% of goal. The estimated possible payouts based on the parameters applied at the time of establishing the plan in early 2006 are calculated as follows:

Named Executive Officer	Position	Target Award Multiplier	Base Salary	Target	Maximum at 150% of Target
Kenneth J. Collins	Chief Executive Officer	50%	$ 350,000	$ 175,000	$ 262,500
Nebojsa Janjic, Ph.D.	Chief Scientific Officer	30%	$ 275,000	$ 82,500	$ 123,750
Roger M. Echols, M.D.	Chief Medical Officer	30%	$ 345,000	$ 103,500	$ 155,250
Peter W. Letendre, Pharm.D.	Chief Commercial Officer	40%	$ 295,000	$ 118,000	$ 177,000
Mark L. Smith	Chief Financial Officer	30%	$ 280,000	$ 84,000	$ 126,000

(2) Represents the full number of shares of common stock underlying stock options granted in 2006 to the named executive officers, which may become vested upon satisfaction of service or the applicable performance or market conditions under the equity incentive plan and applicable award agreement. The option awards generally vest 25% at the completion of the first year of service following grant and 1/48th of the total grant

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per month thereafter such that full vesting occurs over four years. However, within the total stock options granted to Mr. Collins, Dr. Echols, Dr. Letendre and Dr. Janjic, respectively, options in the amounts of 163,132, 32,626, 32,626 and 69,331 vest upon the earlier of our quoted stock price equaling at least $18.39 or the vesting schedule described above.

Outstanding Equity Awards at Fiscal year end

The following table shows for the fiscal year ended December 31, 2006, certain information regarding outstanding equity awards at fiscal year end for the Named Executive Officers.

Outstanding Equity Awards At December 31, 2006

	Option Awards(1)					Stock Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable (2)	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested #	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested ($)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Kenneth J. Collins	326,263	0	0	$ 3.19	1/19/16	0	$ 0	0	$ 0
Nebojsa Janjic	138,661	0	0	$ 3.19	1/19/16	0	$ 0	0	$ 0
Roger M. Echols	101,958	0	0	$ 0.613	12/2/14	0	$ 0	0	$ 0
	65,251	0	0	$ 3.19	1/19/16				
Peter W. Letendre	203,915	0	0	$ 0.613	3/9/15	0	$ 0	0	$ 0
	65,251	0	0	$ 3.19	1/19/16				
Mark L. Smith	163,131	0	0	$ 5.20	3/9/16	0	$ 0	0	$ 0

(1) Does not include stock options that are early exercisable and that were exercised prior to the fiscal year end. In 2005, Mr. Collins exercised an option for 356,851 shares of common stock, 137,536 shares of which remain

unvested as of December 31, 2006 and subject to repurchase by us at cost. In 2005, Dr. Janjic exercised an option for 224,306 shares of common stock, 86,451 shares of which remain unvested as of December 31, 2006 and subject to repurchase by us at cost. The repurchase restriction lapses as to these shares held by Mr. Collins and Dr. Janjic based on the same time-based vesting schedule tied to continued employment that applied to the original option grants. However, 89,212 shares subject to repurchase and held by Mr. Collins as a result of his early exercise of the stock option in 2005 will cliff vest upon the earlier of four years from the date of original grant (being January 1, 2008) or approval by the FDA of a new drug application for faropenem medoxomil. Similarly, 56,076 shares subject to repurchase and held by Dr. Janjic as a result of his early exercise of the stock option in 2005 will cliff vest upon the earlier of four years from the date of original grant (being January 1, 2008) or approval by the FDA of a new drug application for faropenem medoxomil.

(2) All options listed in this column permit early exercise of unvested shares, in which case all unvested shares are subject to repurchase by us at cost. The option awards vest 25% at the completion of the first year of service following grant and 1/48th of the total grant per month thereafter such that full vesting occurs over four years. However, within the total stock options held by Mr. Collins, Dr. Echols, Dr. Letendre and Dr. Janjic, respectively, options in the amounts of 163,132, 32,626, 32,626 and 69,331 vest upon the earlier of our quoted stock price equaling at least $18.39 or the vesting schedule described above.

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OPTION EXERCISES AND STOCK VESTED

The following table shows for the fiscal year ended December 31, 2006, certain information regarding option exercises and stock vested during the last fiscal year with respect to the Named Executive Officers:

Option Exercises and Stock Vested in Fiscal 2006

	Option Awards		Stock Awards	
Name	**Number of Shares Acquired on Exercise (#)**	**Value Realized on Exercise ($)**	**Number of Shares Acquired on Vesting (#)**	**Value Realized on Vesting ($)**
(a)	**(b)**	**(c)**	**(d)**	**(e)**
Kenneth J. Collins	0	$ 0	0	$ 0
Nebojsa Janjic	0	$ 0	0	$ 0
Roger M. Echols	0	$ 0	0	$ 0
Peter W. Letendre	0	$ 0	0	$ 0
Mark L. Smith	0	$ 0	0	$ 0

POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE-IN-CONTROL

We have entered into certain agreements that will require us to provide compensation to named executive officers of Replidyne in the event of a termination of employment or a change in control of Replidyne. We have entered into employment agreements with each of Kenneth Collins, Chief Executive Officer, Nebojsa Janjic, Ph.D., Chief Scientific Officer, Roger M. Echols, M.D., Chief Medical Officer, Peter Letendre, Pharm.D., Chief Commercial Officer, and Mark Smith, Chief Financial Officer. The employment agreements provide that we may terminate the employee at any time with or without cause. However, if the employee s employment is terminated without cause or terminated by the employee for good reason, then the employee shall be entitled to receive a severance package consisting of:

- salary continuation for a period of 12 months from the date of termination; and
- reimbursement for the cost of continued medical insurance coverage through the end of this 12 month period or, if earlier, the date on which the employee obtains alternative group health insurance.

Upon a change in control of Replidyne, each of the employment agreements provide that the employee shall be entitled to acceleration of vesting of 50% of the employee s outstanding unvested options to purchase our common stock. If the employee s employment is terminated without cause or terminated by the employee for good reason within one month before or 13 months following a change of control, then the employee shall be entitled to the following benefits:

salary continuation for a period of 12 months (or 18 months with respect to Mr. Collins and Dr. Janjic) from the date of termination;

reimbursement for the cost of continued medical insurance coverage through the end of this 12 month period (or 18 month period with respect to Mr. Collins and Dr. Janjic) or if earlier, the date on which the employee obtains alternative group health insurance; and

acceleration of vesting of all of the employee s outstanding unvested options to purchase our common stock.

In addition, if Mr. Collin s employment is terminated without cause or terminated by him for good reason within one month before or 13 months following a change of control of us, then he would be entitled to payment of a bonus equal to the average of his annual bonus for the two years prior to such termination.

The estimated amount of compensation payable to each named executive officer in each situation is set forth in the tables below. As a condition to the receipt of the payments or benefits described below for each executive, the executives must execute a written release in favor of Replidyne and must acknowledge their continuing obligations

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under their respective Proprietary Information and Inventions Agreements with Replidyne, including the one-year post-termination non-solicitation and non-competition obligations contained in such agreements.

The following table describes the estimated potential payments upon termination or a change in control of Replidyne for Kenneth Collins, our Chief Executive Officer:

Executive Benefits and Payments(1)	Termination Without Cause or Resignation for Good Reason	Termination for Cause	Change in Control	Termination Following Change in Control(2)
Base Salary	$ 350,000	$ 0		$ 525,000
Health Insurance	13,805	0		20,708
Option Acceleration		0	$ 1,331,103	2,662,206
Bonus		0		115,250
Total	$ 363,805	0	$ 1,331,103	$ 3,323,164

(1) For purposes of the above quantitative analysis for this executive, we assumed the following: current base salary equal to $350,000 is in effect as of the trigger date, executive s unvested stock options for 326,263 shares and unvested stock of 137,536 shares at December 31, 2006 would be subject to accelerated vesting on that date when the last reported closing price per share of our common stock was $5.74; executive s annual bonus for 2006 was $108,500 and his annual bonus for 2005 was $122,000; executive does not obtain alternative group health insurance during the severance period.

(2) Based on termination without cause or resignation for good reason within one month before or 13 months following a change of control.

The following table describes the estimated potential payments upon termination or a change in control of Replidyne for Nebojsa Janjic, Ph.D., our Chief Scientific Officer:

Executive Benefits and Payments(1)	Termination Without Cause or Resignation for Good Reason	Termination for Cause	Change in Control	Termination Following Change in Control(2)
Base Salary	$ 275,000	$ 0		$ 412,500
Health Insurance	13,805	0		20,708
Option Acceleration		0	$ 646,071	1,292,143
Total	$ 288,805	$ 0	$ 646,071	$ 1,725,351

(1) For purposes of the above quantitative analysis for this executive, we assumed the following: current base salary equal to $275,000 is in effect as of the trigger date, executive s unvested stock options for 138,661 shares and unvested stock of 86,451 shares at December 31, 2006 would be subject to accelerated vesting on that date when the last reported closing price per share of our common stock was $5.74; executive does not obtain alternative group health insurance during the severance period.

(2) Based on termination without cause or resignation for good reason within one month before or 13 months following a change of control.

The following table describes the estimated potential payments upon termination or a change in control of Replidyne for Roger M. Echols, M.D., our Chief Medical Officer:

Executive Benefits and Payments(1)	**Termination Without Cause or Resignation for Good Reason**	**Termination for Cause**	**Change in Control**	**Termination Following Change in Control(2)**
Base Salary	$ 345,000	$ 0		$ 345,000
Health Insurance	13,805	$ 0		13,805
Option Acceleration		$ 0	$ 479,890	959,780
Total	$ 358,805	$ 0	$ 479,890	$ 1,318,585

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(1) For purposes of the above quantitative analysis for this executive, we assumed the following: current base salary equal to $345,000 is in effect as of the trigger date, executive s unvested stock options for 167,209 shares at December 31, 2006 would be subject to accelerated vesting on that date when the last reported closing price per share of our common stock was $5.74; executive does not obtain alternative group health insurance during the severance period.

(2) Based on termination without cause or resignation for good reason within one month before or 13 months following a change of control.

The following table describes the estimated potential payments upon termination or a change in control of Replidyne for Peter Letendre, Pharm.D., our Chief Commercial Officer:

Executive Benefits and Payments(1)	Termination Without Cause or Resignation for Good Reason	Termination for Cause	Change in Control	Termination Following Change in Control(2)
Base Salary	$ 295,000	$ 0		$ 295,000
Health Insurance	$ 13,805	$ 0		$ 13,805
Option Acceleration		$ 0	$ 516,468	$ 1,032,936
Total	$ 308,805	$ 0	$ 516,468	$ 1,341,741

(1) For purposes of the above quantitative analysis for this executive, we assumed the following: current base salary equal to $295,000 is in effect as of the trigger date, executive s unvested stock options for 179,954 shares at December 31, 2006 would be subject to accelerated vesting on that date when the last reported closing price per share of our common stock was $5.74; executive does not obtain alternative group health insurance during the severance period.

(2) Based on termination without cause or resignation for good reason within one month before or 13 months following a change of control.

The following table describes the estimated potential payments upon termination or a change in control of Replidyne for Mark Smith, our Chief Financial Officer:

Executive Benefits and Payments(1)	Termination Without Cause or Resignation for Good Reason	Termination for Cause	Change in Control	Termination Following Change in Control(2)
Base Salary	$ 280,000	$ 0		$ 280,000
Health Insurance	$ 13,805	$ 0		$ 13,805

Option Acceleration		$ 0	$ 468,186	$	936,372
Total	$ 293,805	$ 0	$ 468,186	$	1,230,177

(1) For purposes of the above quantitative analysis for this executive, we assumed the following: current base salary equal to $280,000 is in effect as of the trigger date, executive s unvested stock options for 163,131 shares at December 31, 2006 would be subject to accelerated vesting on that date when the last reported closing price per share of our common stock was $5.74; executive does not obtain alternative group health insurance during the severance period.

(2) Based on termination without cause or resignation for good reason within one month before or 13 months following a change of control.

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Director Compensation

The following table shows for the fiscal year ended December 31, 2006 certain information with respect to the compensation of all non-employee directors of the Company:

Director Compensation for Fiscal 2006

Name(1) (a)	Fees Earned or Paid in Cash ($) (b)	Stock Awards ($) (c)	Option Awards ($)(2) (d)	Non-Equity Incentive Plan Compensation ($) (e)	Change in Pension Value and Nonqualified Deferred Compensation Earnings (f)	All Other Compensation ($) (g)	Total ($) (h)
Henry Wendt	$ 29,976	$ 0	$ 20,913	$ 0	$ 0	$ 0	$ 50,889
Kirk K. Calhoun	$ 40,750	$ 0	$ 0	$ 0	$ 0	$ 0	$ 40,750
Ralph E. Christoffersen	$ 22,750	$ 0	$ 20,913	$ 0	$ 0	$ 0	$ 43,663
Geoffrey Duyk	$ 22,750	$ 0	$ 20,913	$ 0	$ 0	$ 0	$ 43,663
Christopher D. Earl	$ 23,750	$ 0	$ 20,913	$ 0	$ 0	$ 0	$ 44,663
Augustine Lawlor	$ 23,750	$ 0	$ 20,913	$ 0	$ 0	$ 0	$ 44,663
Daniel J. Mitchell	$ 25,250	$ 0	$ 20,913	$ 0	$ 0	$ 0	$ 46,163

(1) Kenneth J. Collins is also a named executive officer and his compensation is included in the Summary Compensation Table in the Executive Compensation section of this proxy statement. He does not receive any additional compensation for his service on the Board of Directors.

(2) The full grant date fair value of each award reported in this column, as calculated under FAS 123R for financial reporting purposes, is equal to $56,199.

Each of the above named directors had 16,313 shares subject to stock option awards outstanding at fiscal year end.

Director Cash Compensation

In April 2006, our Board of Directors adopted a compensation program for non-employee directors. This compensation program became effective immediately upon the closing of our initial public offering in 2006. Pursuant to this program, each member of our Board of Directors who is not our employee will receive the following cash compensation for board services, as applicable:

$17,500 per year for service as a Board member;

$7,500 per year for service as Chairman of the Audit Committee;

$2,500 per year for service as Chairman of the Compensation Committee or the Nominating and Corporate Governance Committee;

$1,500 for each Board meeting attended in person ($750 for meetings attended by video or telephone conference);

$1,500 for each Audit or Compensation Committee meeting attended by the Chairman of such Committee in person ($750 for meetings attended by video or telephone conference); and

$1,000 for each Committee meeting attended in person by members who are not Chairman of such Committee ($500 for meetings attended by video or telephone conference).

Annual payments are made on the date of the Company s annual meeting of stockholders as a retainer fee. Per-meeting payments are made for meetings actually attended during the fiscal year. Per-meeting payments were made in 2006 for all meetings occurring after the date of the closing of our initial public offering in 2006.

We have reimbursed and will continue to reimburse our non-employee directors for their reasonable expenses incurred in attending meetings of our Board of Directors and Committees of the Board of Directors.

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Director Equity Compensation

Members of our Board of Directors who are not our employees receive non-statutory stock options under the terms of a Non-Discretionary Grant Program contained in our 2006 Equity Incentive Plan. Upon initially joining our Board of Directors, each non-employee director will automatically be granted a non-statutory stock option to purchase 16,313 shares of common stock with an exercise price equal to the then fair market value of our common stock. On the date of each annual meeting of our stockholders, each non-employee director who has served as a non-employee director for at least six months prior to that annual meeting will automatically be granted a non-statutory stock option to purchase 8,156 shares of our common stock on that date with an exercise price equal to the then fair market value of our common stock. Initial grants vest over three years with 33.33% of the shares vesting one year from the date of grant and the remaining shares vesting in equal monthly installments over the next 24 months. Automatic annual grants vest on the first anniversary of the date of grant. All stock options granted under our 2006 Equity Incentive Plan have a term of 10 years. In the event of certain significant corporate transactions constituting a change in control, the vesting of stock awards granted under the Non-Discretionary Grant Program will automatically accelerate in full, unless provided otherwise in an applicable award agreement.

Each non-employee director on our Board of Directors at the effective date of our initial public offering in 2006, who had served as a non-employee director for at least one year prior to that date, was granted a non-statutory stock option to purchase 16,313 shares of common stock with an exercise price equal to the then fair market value of our common stock, with the other terms described above.

Transactions With Related Persons

Related-Person Transactions Policy and Procedures

Under its charter, our Audit Committee is charged with the responsibility of reviewing and approving all related-party transactions as required by Nasdaq rules. We have adopted a Code of Business Conduct and Ethics (the Code) that applies to all of our employees (including executive officers) and directors. The Code is available on our website at www.replidyne.com under the heading Investor Information . We distribute the Code to every employee, officer and director and convey our expectation that every employee, officer and director read and understand the Code and its application to the performance of each such person s business responsibilities. To facilitate compliance with the Code, we have implemented a program of Code awareness, training and review, which includes training employees and directors in Code policies and applicable legal requirements, such as the Nasdaq rules regarding related-party transactions.

To assist in identifying such proposed transactions as they may arise, our Code utilizes a more general principles-based guideline to alert employees and directors to potential conflicts of interest. Under the Code, a conflict of interest occurs when an individual s personal interest may interfere with the performance of his or her duties or the best interests of Replidyne. We expect our employees to be free from influences that conflict with the best interests of Replidyne. Our policy under the Code provides that even the appearance of a conflict of interest where none actually exists can be damaging and should be avoided. Under the Code, conflicts of interest are prohibited unless specifically authorized as described below.

If any employees have questions about a potential conflict or become aware of an actual or potential conflict, they are directed to discuss the matter with their supervisor or the Compliance Officer (who is the head of Human Resources under the Code). Supervisors may not authorize conflict of interest matters or make determinations as to whether a problematic conflict of interest exists without first seeking the approval of the Chief Financial Officer. If the supervisor is involved in the potential or actual conflict, employees are directed to discuss the matter directly with the

Compliance Officer. Officers and directors must seek authorizations and determinations from the Audit Committee.

Our Code recognizes that the non-employee members of our Board may have various business, financial, scientific or other relationships with existing or potential collaborators, suppliers or competitors. Any actual or potential conflicts of interest relating to any of these relationships of our non-employee directors that have been disclosed to our Board shall not be considered violations of the Code and shall not otherwise require a waiver of any

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provisions of the Code. However, if our Board affirmatively determines that any such relationship is inconsistent with the director s responsibilities, the Code requires that the Board advise the director and the director shall terminate the relationship as promptly as practical.

To ensure that our existing procedures are successful in identifying related-party transactions, the Company distributed questionnaires to directors, officers and beneficial owners of more than 5% of any class of the Company s voting securities shortly following the end of the last fiscal year which included, among other things, inquiries about any transactions they have entered into with us.

Certain Related-Person Transactions

Loans

In 2005, we entered into interest-bearing note receivable agreements with two of our officers for the purpose of early exercising stock options in accordance with our equity incentive plan and their option agreements. The loans were secured by the underlying restricted common stock received upon exercise, and we had full recourse to all assets of the officers to satisfy the notes.

We loaned Nebojsa Janjic, Ph.D., our current Chief Scientific Officer, $137,500.00 pursuant to a promissory note dated March 8, 2005. The note accrued interest at an adjustable rate equal to the prime rate. Dr. Janjic paid us $146,321.24 on February 28, 2006, in full satisfaction of amounts owing under the note.

We loaned Kenneth J. Collins, our current President and Chief Executive Officer, $218,750.00 pursuant to a promissory note dated March 8, 2005. The note accrued interest at an adjustable rate equal to the prime rate. Mr. Collins paid us $232,783.79 on February 28, 2006, in full satisfaction of amounts owing under the note.

Indemnification Agreements

The Company has entered into indemnity agreements with certain officers and directors which provide, among other things, that the Company will indemnify such officer or director, under the circumstances and to the extent provided for therein, for expenses, damages, judgments, fines and settlements he or she may be required to pay in actions or proceedings which he or she is or may be made a party by reason of his or her position as a director, officer or other agent of the Company, and otherwise to the fullest extent permitted under Delaware law and the Company s Bylaws.

Board Member Stock Option Grants in Connection with Annual Meeting

Under the Non-Discretionary Grant Program pursuant to the Company s 2006 Equity Incentive Plan:

- Upon election to the board of directors, Edward Brown will receive a stock option grant to purchase 16,313 shares of common stock; and

- On the date of the annual meeting of our stockholders, each continuing non-employee director (Kirk K. Calhoun, Geoffrey Duyk, M.D., Ph.D., Christopher D. Earl, Ph.D., Augustine Lawlor and Daniel J. Mitchell) will receive a stock option grant to purchase 8,156 shares of common stock.

Stock Option Grants to Executive Officers

In March 2007, our Compensation Committee granted options to our executive officers as follows:

Executive Officer	Options Granted in March 2007
Kenneth Collins	100,000
Roger Echols, M.D.	90,000
Peter Letendre, Pharm.D.	90,000
Nebojsa Janjic, Ph.D.	90,000
Mark Smith	90,000
Donald Morrissey	90,000

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These options were granted with an exercise price equal to the fair market value of our common stock on the date of grant. These options vest 25% at the completion of the first year of service following grant and 1/48 of the total grant per month thereafter such that full vesting occurs over four years from the date of grant. These options have a ten-year term.

Householding of Proxy Materials

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for proxy statements and annual reports with respect to two or more stockholders sharing the same address by delivering a single proxy statement addressed to those stockholders. This process, which is commonly referred to as householding, potentially means extra convenience for stockholders and cost savings for companies.

This year, a number of brokers with account holders who are Replidyne, Inc. stockholders will be householding our proxy materials. A single proxy statement will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that they will be householding communications to your address, householding will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in householding and would prefer to receive a separate proxy statement and annual report, please notify your broker. Direct your written request to Replidyne, Inc., Attn: Chief Financial Officer, 1450 Infinite Dr., Louisville, CO 80027. Stockholders who currently receive multiple copies of the proxy statement at their addresses and would like to request householding of their communications should contact their brokers.

Other Matters

The Board of Directors knows of no other matters that will be presented for consideration at the Annual Meeting. If any other matters are properly brought before the meeting, it is the intention of the persons named in the accompanying proxy to vote on such matters in accordance with their best judgment.

By Order of the Board of Directors

Nebojsa Janjic, Ph.D,
Secretary

April 19, 2007

A copy of the Company s Annual Report to the Securities and Exchange Commission on Form 10-K for the fiscal year ended December 31, 2006 is available without charge upon written request to: Corporate Secretary, Replidyne, Inc., 1450 Infinite Dr., Louisville, CO 80027.

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ANNUAL MEETING OF STOCKHOLDERS OF
REPLIDYNE, INC.
May 10, 2007

PROXY VOTING INSTRUCTIONS

MAIL - Date, sign and mail your proxy card in the envelope provided as soon as possible.

- OR -

TELEPHONE - Call toll-free **1-800-PROXIES** (1-800-776-9437) from any touch-tone telephone and follow the instructions. Have your proxy card available when you call.

- OR -

INTERNET - Access **www.voteproxy.com** and follow the on-screen instructions. Have your proxy card available when you access the web page.

COMPANY NUMBER

ACCOUNT NUMBER

You may enter your voting instructions at www.voteproxy.com up until 11:59 PM Eastern Time the day before the cut-off or meeting date.

ê Please detach along perforated line and mail in the envelope provided IF you are not voting via the Internet. ê

n 20230000000000000000 0 051007

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR THE NOMINEES FOR DIRECTOR LISTED BELOW AND FOR PROPOSAL 2.
PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN HERE x

FOR AGAINST ABSTAIN

Proposal 1. To select two directors to held office until the 2010 Annual Meeting of Stockholders.

Proposal 2. To ratify selection by the Audit Committee of the Board of Directors of KPMG LLP as independent auditors of the Company for its fiscal year ending December 31, 2007.	o	o	o

NOMINEES:

- o FOR ALL NOMINEES
  - ¡ Christopher D. Eart, Ph.D.
  - ¡ Edward Brown
- o WITHHOLD AUTHORITY FOR ALL NOMINEES
- o FOR ALL EXCEPT

Please vote, date and promptly return this proxy in the enclosed return envelope which is postage prepaid if mailed in the United States.

Signature of Stockholder: Date: Signature of Stockholder: Date:

Note: Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

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ANNUAL MEETING OF STOCKHOLDERS OF
REPLIDYNE, INC.
May 10, 2007

Please date, sign and mail
your proxy card in the
envelope provided as soon
as possible.

â Please detach along perforated line and mail in the envelope provided. â

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THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR THE NOMINEES FOR DIRECTOR LISTED BELOW AND FOR PROPOSAL 2.
PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN HERE x

Proposal 1. To elect two directors to held office until the 2010 Annual Meeting of Stockholders.

NOMINEES:

o FOR ALL NOMINEES
¡ Christopher D. Eart, Ph.D.
¡ Edward Brown

o WITHHOLD AUTHORITY FOR ALL NOMINEES

o FOR ALL EXCEPT

	FOR	AGAINST	ABSTAIN
Proposal 2. To ratify selection by the Audit Committee of the Board of Directors of KPMG LLP as independent auditors of the Company for its fiscal year ending December 31, 2007.	o	o	o

Please vote, date and promptly return this proxy in the enclosed return envelope which is postage prepaid if mailed in the United States.

Signature of Stockholder Date: Signature of Stockholder Date:

Note: Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate

name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

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REPLIDYNE, INC.
PROXY SOLICITED BY THE BOARD OF DIRECTORS
FOR THE ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON MAY 10, 2007

The undersigned hereby appoints Kenneth Collins and Mark Smith, and each of them, as attorneys and proxies of the undersigned, with full power of substitution, to vote all of the shares of stock of Replidyne, Inc. (the Company) which the undersigned may be entitled to vote at the Annual Meeting of Stockholders of the Company to be held at the offices of the Company located at 1450 Infinite Dr., Louisville, Colorado, 80027 on Thursday, May 10, 2007 at 2:00 p.m. (local time), and at any and all postponements, continuations and adjournments thereof, with all powers that the undersigned would possess if personally present, upon and in respect of the following matters and in accordance with the following instructions, with discretionary authority as to any and all other matters that may properly come before the meeting.

UNLESS A CONTRARY DIRECTION IS INDICATED, THIS PROXY WILL BE VOTED FOR ALL NOMINEES LISTED IN PROPOSAL 1 AND FOR PROPOSAL 2, AS MORE SPECIFICALLY DESCRIBED IN THE PROXY STATEMENT. IF SPECIFIC INSTRUCTIONS ARE INDICATED, THIS PROXY WILL BE VOTED IN ACCORDANCE THEREWITH.

CONTINUED AND TO BE SIGNED ON THE REVERSE SIDE

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