

Sandberg Sheryl
Form 4
December 18, 2012

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Washington, D.C. 20549

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
Sandberg Sheryl

2. Issuer Name and Ticker or Trading Symbol
Facebook Inc [FB]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)

3. Date of Earliest Transaction (Month/Day/Year)
12/17/2012

Director 10% Owner
 Officer (give title below) Other (specify below)
Chief Operating Officer

C/O FACEBOOK, INC., 1601 WILLOW ROAD

(Street)

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

MENLO PARK, CA 94025

(City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code V	Amount	(A) or (D)	Price
Class A Common Stock	12/17/2012		S ⁽¹⁾	226,341	D	\$ 26.763 ⁽²⁾	16,598,733
Class A Common Stock	12/17/2012		S ⁽¹⁾	8,928	D	\$ 26.75	1,816,318
Class A Common Stock	12/18/2012		S ⁽¹⁾	70,074	D	\$ 27.9002 ⁽⁴⁾	16,528,659

By Sheryl K. Sandberg, Trustee of the Sheryl K. Sandberg 2008 Annuity Trust dated April 15, 2008 ⁽³⁾

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Class A Common Stock	12/18/2012	S ⁽¹⁾	4,464	D	\$ 27.9	1,811,854	I	By Sheryl K. Sandberg, Trustee of the Sheryl K. Sandberg 2008 Annuity Trust dated April 15, 2008 ⁽³⁾
Class A Common Stock						7,780	I	By Sheryl K. Sandberg, Trustee of the Sandberg-Goldberg Family Trust dated September 3, 2004 ⁽⁵⁾

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474
(9-02)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Nu Deriv Secur Bene Own Follo Repo Trans (Instr
				Code	V (A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Sandberg Sheryl C/O FACEBOOK, INC. 1601 WILLOW ROAD MENLO PARK, CA 94025	X		Chief Operating Officer	

Signatures

/s/ Michael Johnson as attorney-in-fact for Sheryl K.
Sandberg

12/18/2012

__Signature of Reporting Person

Date

Explanation of Responses:

* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) The sales reported on this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person.

The reported price in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$26.75 to \$26.87 per share, inclusive. The reporting person undertakes to provide to the issuer, any security holder of the issuer, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the range set forth in this footnote (2).

(3) Shares held of record by Sheryl K. Sandberg, Trustee of the Sheryl K. Sandberg 2008 Annuity Trust dated April 15, 2008.

The reported price in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$27.9 to \$27.905 per share, inclusive. The reporting person undertakes to provide to the issuer, any security holder of the issuer, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the range set forth in this footnote (4).

(5) Shares held of record by Sheryl K. Sandberg, Trustee of the Sandberg-Goldberg Family Trust dated September 3, 2004.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

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results from non-clinical studies that may adversely impact the timing or the further development of our drug candidates and other compounds;

the possibility that the U.S. Food and Drug Administration (FDA) or foreign regulatory agencies may delay or limit our or our partners ability to conduct clinical trials or may delay or withhold approvals for the manufacture and sale of our products;

activities and decisions of, and market conditions affecting, current and future strategic partners;

our ability to issue and sell shares of our common stock under our At-The-Market Issuance Sales Agreement with McNicoll, Lewis & Vlak LLC;

changing standards of care and the introduction of products by competitors or alternative therapies for the treatment of indications we target that may make our drug candidates commercially unviable;

changes in laws and regulations applicable to drug development, commercialization or reimbursement;

the uncertainty of protection for our intellectual property, whether in the form of patents, trade secrets or otherwise;

potential infringement or misuse by us of the intellectual property rights of third parties; and

the timeliness and accuracy of information filed with the U.S. Securities and Exchange Commission (the SEC) by third parties.

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In addition such statements are subject to the risks and uncertainties discussed in the Risk Factors section and elsewhere in this document. Operating results reported are not necessarily indicative of results that may occur in future periods.

When used in this report, unless otherwise indicated, Cytokinetics, the Company, we, our and us refers to Cytokinetics, Incorporated.

CYTOKINETICS, and our logo used alone and with the mark CYTOKINETICS, are registered service marks and trademarks of Cytokinetics. Other service marks, trademarks and trade names referred to in this report are the property of their respective owners.

Overview

We were incorporated in Delaware in August 1997 as Cytokinetics, Incorporated. We are a clinical-stage biopharmaceutical company focused on the discovery and development of novel small molecule therapeutics that modulate muscle function for the potential treatment of serious diseases and medical conditions. Our research and development activities relating to the biology of muscle function have evolved from our knowledge and expertise regarding the cytoskeleton, a complex biological infrastructure that plays a fundamental role within every human cell. Our most advanced research and development programs relate to the biology of muscle function and are directed to small molecule modulators of the contractility of skeletal or cardiac muscle. We are also conducting earlier-stage research directed to other compounds with the potential to modulate muscle contractility and other muscle functions, such as growth, energetics and metabolism.

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Our drug candidates currently in clinical development are our skeletal muscle activators, tirasemtiv and CK-2127107, and our cardiac muscle activator, omecamtiv mecarbil. Tirasemtiv is being evaluated for the potential treatment of ALS and other neuromuscular disorders. CK-2127107 is being evaluated for the potential treatment of non-neuromuscular indications associated with skeletal muscle weakness. Omecamtiv mecarbil is being evaluated for the potential treatment of heart failure.

Skeletal Muscle Contractility

Tirasemtiv is the lead drug candidate from this program, and is in Phase II clinical development. We are also developing another drug candidate from this program, CK-2127107, which is in a first-time-in-humans, Phase I clinical trial. Tirasemtiv and CK-2127107 are structurally distinct and selective small molecules that activate the fast skeletal muscle troponin complex in the sarcomere by increasing its sensitivity to calcium, leading to an increase in skeletal muscle contractility. We are evaluating potential indications for which tirasemtiv and CK-2127107 may be useful.

Each of tirasemtiv and CK-2127107 has demonstrated encouraging pharmacological activity in preclinical models. In our Phase I clinical trials of tirasemtiv in healthy volunteers, tirasemtiv appeared well-tolerated and no serious adverse events were reported. We have conducted three evidence of effect Phase IIa clinical trials of tirasemtiv: one in patients with ALS, one in patients with myasthenia gravis and one in patients with claudication associated with peripheral artery disease. Evidence of potentially clinically relevant pharmacodynamic effects was observed in each of these trials for their respective indications. In two further Phase II clinical trials of tirasemtiv in patients with ALS, encouraging trends toward functional improvements were observed in patients receiving tirasemtiv versus those receiving placebo. We are now conducting BENEFIT-ALS (Blinded Evaluation of Neuromuscular Effects and Functional Improvement with Tirasemtiv in ALS), a Phase IIb clinical trial of tirasemtiv in patients with ALS. We anticipate that we will need to conduct at least one confirmatory Phase III clinical trial of tirasemtiv in patients with ALS to gain marketing approval.

Tirasemtiv

ALS

In October 2012, we initiated BENEFIT-ALS, a multi-national, double-blind, randomized, placebo-controlled trial originally planned to enroll at least 400 patients and subsequently increased to enroll up to 500 patients. All patients begin treatment with open-label tirasemtiv at 125 mg twice daily. Patients who complete a week of open-label tirasemtiv at this starting dose are randomized 1-to-1 to receive 12 weeks of double-blind treatment with tirasemtiv or placebo. Clinical assessments take place monthly during double-blinded treatment. Randomized patients also participate in follow-up evaluations at both 7 and 28 days after their final dose of double-blind study drug. We are conducting BENEFIT-ALS at over 70 sites across the United States, Canada and several European countries. To date, we have enrolled over 500 patients in BENEFIT-ALS.

In July 2013, we were informed by our data management vendor that a programming error in the electronic data capture system controlling study drug assignment caused 58 patients initially randomized to and treated with tirasemtiv to receive placebo instead at a certain study visit and for the remainder of the study. No patients randomized to placebo were dispensed incorrect treatment. Cytokinetics and all clinical trial site personnel remain blinded to the specific patients affected by the error. Following detection of the error, we took steps to ensure that no further incorrect study drug assignments occurred and to correct the programming error in the electronic data capture system controlling study drug assignment. In addition, we convened an ad hoc meeting of the study's Data Safety Monitoring Board (DSMB) to assess whether the error in dispensing study drug had impacted the safety of the 58 affected patients. After review of the relevant safety data from BENEFIT-ALS, the DSMB reported no concerns regarding patient safety.

Following interactions with regulatory authorities, we amended the protocol for BENEFIT-ALS to enable increased enrollment to approximately 680 patients and to update the statistical methods section, in both cases with the objective to maintain the originally intended statistical power of the trial. Enrollment is expected to continue as the new protocol amendment becomes effective at participating investigative centers. We now expect to complete patient enrollment in BENEFIT-ALS during the second half of 2013, with results expected to be available in early 2014. These changes to BENEFIT-ALS are expected to increase the direct clinical trial costs by approximately \$5 million in 2013 and 2014.

Myasthenia Gravis

In 2010, the National Institute of Neurological Disorders and Stroke (NINDS) awarded us a grant of \$2.8 million under the American Recovery and Reinvestment Act of 2009, which was intended to support three years of research and development of tirasemtiv for the potential treatment of myasthenia gravis. In September 2012, the NINDS awarded us an additional \$0.5 million for this program under a separate grant. We recognized revenue under this grant in the first six months of 2013 and 2012 of \$0.1 million and \$0.6 million, respectively, which we recorded

as research and development grant and other revenues.

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CK-2127107

In April 2013, we announced the initiation of a first-time-in-humans Phase I clinical trial of CK-2127107 in healthy male volunteers, known as CY 5011. CY 5011 is a double-blind, randomized, placebo-controlled study designed to assess the safety, tolerability, and pharmacokinetics of single ascending oral doses of CK-2127107 administered in a three-period crossover design.

In June 2013 we entered into a collaboration and license agreement with Astellas (the *Astellas Agreement*). Under the *Astellas Agreement*, we granted Astellas an exclusive license to co-develop and jointly commercialize CK-2127107 for potential application in non-neuromuscular indications associated with skeletal muscle weakness worldwide. CK-2127107 will be developed jointly by Cytokinetics and Astellas. Cytokinetics will be primarily responsible for the conduct of Phase I clinical trials, including CY 5011, and certain Phase II readiness activities for CK-2127107. Astellas will be primarily responsible for the conduct of subsequent development and commercialization activities for CK-2127107.

The parties will jointly conduct research to identify next-generation skeletal muscle activators to be nominated as potential drug candidates, at Astellas' expense. Astellas has the exclusive rights to develop and commercialize fast skeletal troponin activators from this research program in non-neuromuscular indications and to develop and commercialize other novel mechanism skeletal muscle activators from this research program in all indications, subject to certain Cytokinetics' co-development and co-promotion rights. Astellas will be responsible for the costs associated with the development of all collaboration products, including CK-2127107.

Under the *Astellas Agreement*, we retain an option to conduct early-stage development for certain agreed indications at our initial expense, subject to reimbursement if development continues under the collaboration. We also retain an option to co-promote collaboration products in the United States and Canada. Astellas will reimburse us for certain expenses associated with our co-promotion activities.

In July 2013, we received an upfront payment of \$16 million in connection with the execution of the *Agreement*, and we are eligible to potentially receive over \$24 million in reimbursement of sponsored research and development activities during the initial two years of the collaboration. Based on the achievement of pre-specified criteria, we may receive over \$250 million in milestone payments relating to the development and commercial launch of collaboration products, including up to \$112 million in development and commercial launch milestones for CK-2127107. We may also receive up to \$200 million in payments for achievement of pre-specified sales milestones related to net sales of all collaboration products under the *Agreement*. If Astellas commercializes any collaboration products, we will also receive royalties on sales of such collaboration products, including royalties ranging from the high single digits to the high teens on sales of products containing CK-2127107. In addition to these development, commercial launch and sales milestones, we may also receive payments for the achievement of pre-specified milestones relating to the joint research program.

The clinical trials programs for each of tirasemtiv and CK-2127107 may proceed for several years, and we will not be in a position to generate any revenues or material net cash flows from sales of this drug candidate until the program is successfully completed, regulatory approval is achieved, and the drug is commercialized. Tirasemtiv and CK-2127107 are each at too early a stage of development for us to predict if or when this may occur. Our expenditures will increase if and as we move tirasemtiv into later development. Our expenditures will also increase if Astellas terminates development of CK-2127107 or related compounds and we elect to develop them independently, or if we conduct early-stage development for certain agreed indications at our initial expense, subject to reimbursement if development continues under the collaboration.

We recorded research and development expenses for our skeletal muscle contractility program of approximately \$17.0 million and \$11.4 million in the first six months of 2013 and 2012, respectively. We anticipate that our expenditures on research and development in our skeletal muscle contractility program will increase significantly as we may continue the clinical development of tirasemtiv, CK-2127107 or other compounds from the skeletal muscle contractility program.

Cardiac Muscle Contractility

Our lead drug candidate from this program is omecamtiv mecarbil, a novel cardiac muscle myosin activator. In December 2006, we entered into a collaboration and option agreement with Amgen to discover, develop and commercialize novel small molecule therapeutics, including omecamtiv mecarbil, that activate cardiac muscle contractility for potential applications in the treatment of heart failure (the *Amgen Agreement*). The agreement granted Amgen an option to obtain an exclusive license worldwide, except Japan, to develop and commercialize omecamtiv mecarbil and other drug candidates arising from the collaboration.

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In May 2009, Amgen exercised its option. As a result, Amgen became responsible for the development and commercialization of omecamtiv mecarbil and related compounds at its expense worldwide (excluding Japan), subject to our development and commercialization participation rights. Amgen will reimburse us for agreed research and development activities we perform under the collaboration. We are eligible for potential pre-commercialization and commercialization milestone payments of up to \$600 million in the aggregate on omecamtiv mecarbil and other potential products arising from research under the collaboration, and royalties that escalate based on increasing levels of annual net sales of products commercialized under the agreement. The Amgen Agreement also provides for us to receive increased royalties by co-funding Phase III development costs of omecamtiv mecarbil and other drug candidates under the collaboration. If we elect to co-fund such costs, we would be entitled to co-promote the co-funded drug in North America and participate in agreed commercialization activities in institutional care settings, at Amgen's expense. In July 2013, Amgen announced that it had granted an option to commercialize omecamtiv mecarbil in Europe to Servier.

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In June 2013, Cytokinetics and Amgen announced an amendment to the Amgen Agreement to include Japan, resulting in a worldwide collaboration (the Amgen Agreement Amendment). (See Note 4 to unaudited condensed financial statements.) Under the terms of the Amgen Agreement Amendment, we received a non-refundable upfront license fee of \$15 million in June 2013. Under the Amgen Agreement Amendment, we plan to conduct a Phase I pharmacokinetic study intended to support inclusion of Japan in a potential Phase III clinical development program and potential global registration dossier for omecamtiv mecarbil. Amgen will reimburse us for the costs of this study. In addition, we are eligible to receive additional pre-commercialization milestone payments relating to the development of omecamtiv mecarbil in Japan of up to \$50 million, and royalties on sales of omecamtiv mecarbil in Japan.

In conjunction with the Amgen Agreement Amendment, we also entered into a common stock purchase agreement which provided for the sale of 1,404,100 shares of our common stock to Amgen at a price per share of \$7.12 and an aggregate purchase price of \$10.0 million which was received in June 2013. Pursuant to this agreement, Amgen has agreed to certain trading and other restrictions with respect to our common stock. We determined the fair value of the stock issued to Amgen to be \$7.5 million. The excess of cash received over fair value of \$2.5 million was deferred and will be recognized as revenue as services are performed over approximately 12 months.

Omecamtiv Mecarbil. We expect omecamtiv mecarbil to be developed as a potential treatment across the continuum of care in heart failure, both as an intravenous formulation for use in the hospital setting and as an oral formulation for use in the outpatient setting. Amgen is currently conducting clinical trials of omecamtiv mecarbil in collaboration with Cytokinetics.

In March 2013, we announced that enrollment was completed in ATOMIC-AHF (Acute Treatment with Omecamtiv Mecarbil to Increase Contractility in Acute Heart Failure). ATOMIC-AHF is an international, randomized, double-blind, placebo-controlled, Phase IIb clinical trial of intravenous omecamtiv mecarbil in patients with left ventricular systolic dysfunction hospitalized with acutely decompensated heart failure. This clinical trial enrolled over 600 patients in three sequential, ascending-dose cohorts. In each cohort, patients were randomized to receive omecamtiv mecarbil or placebo. The primary efficacy objective of this trial was to evaluate the effect of 48 hours of intravenous omecamtiv mecarbil compared to placebo on dyspnea (shortness of breath). The secondary objectives were to assess the safety and tolerability of three dose levels of intravenous omecamtiv mecarbil compared with placebo and to evaluate the effects of 48 hours of treatment with intravenous omecamtiv mecarbil on additional measures of dyspnea, patients' global assessments, change in N-terminal pro brain-type natriuretic peptide (a biomarker associated with the severity of heart failure) and short-term clinical outcomes in these patients. In addition, the trial evaluated the relationship between plasma concentrations of omecamtiv mecarbil and echocardiographic parameters in patients with acute heart failure. The results from ATOMIC-AHF are planned to be presented at the European Society of Cardiology Congress and the Heart Failure Society of America conference, both in September 2013.

In March 2013, we announced the initiation of dosing of patients in COSMIC-HF (Chronic Oral Study of Myosin Activation to Increase Contractility in Heart Failure). COSMIC-HF is a Phase II, double-blind, randomized, placebo-controlled, multicenter, dose escalation study designed to evaluate several modified-release oral formulations of omecamtiv mecarbil in patients with heart failure and left ventricular systolic dysfunction. The primary objectives of this trial are to select an oral modified release formulation and doses of omecamtiv mecarbil for chronic twice-daily dosing in patients with heart failure and left ventricular systolic dysfunction and to characterize its pharmacokinetics after 12 weeks of treatment. The secondary objective is to evaluate the safety and tolerability of oral omecamtiv mecarbil. In addition, we will have an opportunity to evaluate the potential for sustained pharmacodynamic effects and their relationship to the pharmacokinetics of this drug candidate. We expect that over 400 patients will be enrolled in this clinical trial. In July 2013, we announced the opening of enrollment for the second cohort of the dose-escalation phase in COSMIC-HF. We expect that Amgen will initiate the expansion phase of this trial by the end of 2013.

During the quarter, Cytokinetics and Amgen reviewed results from a recently completed Phase I, open-label, single-dose clinical trial designed to compare the pharmacokinetics of omecamtiv mecarbil in patients undergoing hemodialysis versus healthy volunteers. No clinically meaningful differences were observed in this study in the pharmacokinetics of omecamtiv mecarbil administered to patients undergoing hemodialysis versus healthy volunteers.

Ongoing Research in Cardiac Muscle Contractility. In the first quarter of 2013, we and Amgen agreed to additional research activities intended to be conducted through 2014 under a collaborative research program directed to the discovery of next-generation cardiac sarcomere activator compounds. Under the Amgen Agreement, Amgen will reimburse us for certain agreed research activities we perform.

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The clinical trials program for omecamtiv mecarbil may proceed for several years, and we will not be in a position to generate any revenues or material net cash flows from sales of this drug candidate until the program is successfully completed, regulatory approval is achieved, and the drug is commercialized. Omecamtiv mecarbil is at too early a stage of development for us to predict if or when this may occur. We recorded research and development expenses for our cardiac muscle contractility program of approximately \$1.5 million and \$2.2 million in the first six months of 2013 and 2012, respectively. We recognized research and development revenue from Amgen of \$0.9 million and \$2.3 million in the first six months of 2013 and 2012, respectively, consisting of reimbursements of full-time employee equivalent (FTE) and other expenses.

We anticipate that our expenditures relating to the research and development of compounds in our cardiac muscle contractility program will increase if we participate in the future advancement of omecamtiv mecarbil through clinical development. Our expenditures will also increase if Amgen terminates development of omecamtiv mecarbil or related compounds and we elect to develop them independently, or if we elect to co-fund later-stage development of omecamtiv mecarbil or other compounds in our cardiac muscle contractility program under our collaboration and option agreement with Amgen.

Other Research and Preclinical Programs

We are leveraging our current understandings of muscle biology to investigate new ways to modulate muscle function beyond contractility (such as metabolism, growth and energetics) for other potential therapeutic applications. For example, we are conducting research with compounds that may affect muscle growth and that may have applications for serious diseases and medical conditions such as cachexia. Cachexia is a condition that can be associated with cancer, heart failure, chronic obstructive pulmonary disease or other conditions. This syndrome is characterized by the loss of muscle mass and may lead to weakness and disability. We are performing research on compounds that may increase muscle mass and which may impact patient functionality or potentially alter the course of diseases associated with muscle wasting. Similarly, we are performing research on compounds that may affect muscle metabolism and that may have application in conditions such as diabetes or obesity as well as other conditions of metabolic dysfunction.

Development Risks

The successful development of any of our drug candidates is highly uncertain. We cannot estimate with certainty or know the exact nature, timing and costs of the activities necessary to complete the development of any of our drug candidates or the date of completion of these development activities due to numerous risks and uncertainties, including, but not limited to:

decisions made by Amgen with respect to the development of omecamtiv mecarbil and by Astellas with respect to the development of CK-2127107;

our potential inability to obtain the additional funding necessary for us to conduct the one or more confirmatory Phase III clinical trials for tirasemtiv in patients with ALS that we anticipate will be required to obtain marketing approval for this indication;

the uncertainty of the timing of the initiation and completion of patient enrollment and treatment in our clinical trials;

the possibility of delays in the collection of clinical trial data and the uncertainty of the timing of the analyses of our clinical trial data after these trials have been initiated and completed;

our potential inability to obtain additional funding and resources for our development activities on acceptable terms, if at all, including, but not limited to, our potential inability to obtain or retain partners to assist in the design, management, conduct and funding of clinical trials;

failure by our clinical trial sites, clinical research organizations, clinical manufacturing organizations and other third parties supporting our clinical trials to fulfill their obligations or otherwise perform as expected.

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delays or additional costs in manufacturing of our drug candidates for clinical trial use, including developing appropriate formulations of our drug candidates;

the uncertainty of clinical trial results, including variability in patient response;

the uncertainty of obtaining FDA or other foreign regulatory agency approval required for the clinical investigation of our drug candidates;

the uncertainty related to the development of commercial scale manufacturing processes and qualification of a commercial scale manufacturing facility;

the possibility that results from non-clinical studies may adversely impact the timing or further development of our drug candidates; and

possible delays in the characterization, formulation and manufacture of drug candidates and other compounds.

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If we fail to complete the development of any of our drug candidates in a timely manner, it could have a material adverse effect on our operations, financial position and liquidity. In addition, any failure by us or our partners to obtain, or any delay in obtaining, regulatory approvals for our drug candidates could have a material adverse effect on our results of operations. A further discussion of the risks and uncertainties associated with completing our programs as planned, or at all, and certain consequences of failing to do so are discussed further in the risk factors entitled "We will need substantial additional capital in the future to sufficiently fund our operations," "We have never generated, and may never generate, revenues from commercial sales of our drugs and we may not have drugs to market for at least several years, if ever,"

Clinical trials may fail to demonstrate the desired safety and efficacy of our drug candidates, which could prevent or significantly delay completion of clinical development and regulatory approval and Clinical trials are expensive, time-consuming and subject to delay, and other risk factors.

Restructuring

In October 2011, we announced a restructuring plan to realign our workforce and operations in line with our continued commitment to focus primarily on the development of our key later-stage development programs for tirasemtiv and omecamtiv mecarbil and on our follow-on skeletal muscle troponin activator program and joint research with Amgen directed to next-generation cardiac sarcomere activator compounds. As a result, we reduced our workforce by 18 employees, or approximately 18%, to 83 employees. We provided severance, employee benefit continuation and career transition assistance to the employees directly affected by the restructuring. We incurred restructuring charges of \$1.2 million in the fourth quarter of 2011, primarily personnel-related termination costs. We completed all restructuring activities and recognized all anticipated restructuring charges by December 31, 2012. All payments relating to the restructuring were made prior to December 31, 2012; therefore there was no liability for restructuring at December 31, 2012, or at June 30, 2013.

Results of Operations

Revenues

We recorded total revenues of \$1.0 million and \$1.8 million for the second quarter of 2013 and 2012, respectively, and \$1.8 and \$3.7 million for the first six months of 2013 and 2012, respectively.

Research and development revenues from related parties for the second quarter and first six months of 2013 and 2012 consisted of research and development revenues from our strategic alliance with Amgen. Research and development revenues from Amgen were \$0.6 million and \$1.1 million for the second quarter of 2013 and 2012, respectively, and in both periods consisted of reimbursements of FTE expenses and other research and development expenses. Research and development revenues from Amgen were \$0.9 million and \$2.3 million for the first six months of 2013 and 2012, respectively, and in both periods consisted of reimbursements of FTE expenses and other research and development expenses. The research activities under our collaboration with Amgen are anticipated to continue through December 2014.

Research and development, grant and other revenues were \$0.4 million and \$0.7 million for the second quarter of 2013 and 2012, respectively. Research and development, grant and other revenues in the second quarter of 2013 included grant revenue of \$36,000 and research and development revenues from MyoKardia, Inc. of \$0.4 million. Research and development, grant and other revenues in the second quarter of 2012 included grant revenue from the NINDS of \$0.3 million and research and development revenue from Global Blood Therapeutics, Inc. of \$0.4 million.

Research and development, grant and other revenues were \$0.9 million and \$1.4 million for the first six months of 2013 and 2012, respectively. Research and development, grant and other revenues in the first six months of 2013 and 2012 included grant revenue from the NINDS of \$69,000 and \$0.6 million, respectively, and research and development revenue from Global Blood Therapeutics, Inc. of none and \$0.8 million, respectively.

We anticipate that revenue for the full year 2013 will be in the range of \$30 million to \$32 million.

Research and Development Expenses

Research and development expenses were \$12.3 million and \$8.2 million in the second quarter of 2013 and 2012, respectively. The \$4.1 million increase in research and development expenses in the second quarter of 2013, compared to the same period in 2012, was primarily due to increases of \$4.6 million in outsourced clinical costs, \$0.3 million in facilities costs, and \$0.2 million in personnel related costs, partially offset by a decrease of \$1.0 million in outsourced pre-clinical costs.

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Research and development expenses were \$22.2 million and \$17.0 million in the first six months of 2013 and 2012, respectively. The \$5.2 million increase in research and development expenses in the first six months of 2013, compared to the same period in 2012, was primarily due to increases of \$6.5 million in outsourced clinical costs and \$0.5 million in facilities costs, partially offset by a decrease of \$1.9 million in outsourced pre-clinical costs.

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From a program perspective, the \$5.2 million increase in spending in the first six months of 2013, compared to the same period in 2012, was due to increased spending of \$5.6 million for our skeletal muscle contractility program and \$1.6 million for our other research and preclinical programs, partially offset by decreases of \$0.7 million for our cardiac muscle contractility program and \$1.3 million for our smooth muscle contractility program.

Research and development expenses incurred were related to the following programs (in millions):

	Three Months Ended		Six Months Ended	
	June 30, 2013	June 30, 2012	June 30, 2013	June 30, 2012
Cardiac muscle contractility	\$ 0.9	\$ 1.0	\$ 1.5	\$ 2.2
Skeletal muscle contractility	9.8	5.5	17.0	11.4
Smooth muscle contractility	0.1	0.7	0.2	1.5
All other research programs	1.5	1.0	3.5	1.9
Total research and development expenses	\$ 12.3	\$ 8.2	\$ 22.2	\$ 17.0

Clinical development timelines, likelihood of success and total completion costs vary significantly for each drug candidate and are difficult to estimate. We anticipate that we will determine on an ongoing basis which research and development programs to pursue and how much funding to direct to each program, taking into account the scientific and clinical success of each drug candidate. The lengthy process of seeking regulatory approvals and subsequent compliance with applicable regulations requires the expenditure of substantial resources. Any failure by us to obtain and maintain, or any delay in obtaining, regulatory approvals could cause our research and development expenditures to increase and, in turn, could have a material adverse effect on our results of operations.

We expect our research and development expenditures to continue to increase in 2013 compared to 2012. We expect to continue development of tirasemtiv for the potential treatment of ALS and other neuromuscular disorders. As part of our strategic alliance with Astellas, we expect to continue the development of CK-2127107 for the potential treatment of non-neuromuscular indications associated with skeletal muscle weakness. As part of our strategic alliance with Amgen, we expect to continue development of our drug candidate omecamtiv mecarbil for the potential treatment of heart failure. We anticipate that research and development expenses in 2013 will increase compared to 2012 and will be in the range of \$56 million to \$59 million. Non-cash expenses such as stock-based compensation and depreciation of approximately \$3.0 million are included in our estimate of 2013 research and development expenses.

General and Administrative Expenses

General and administrative expenses were \$3.7 million and \$2.6 million in the second quarter of 2013 and 2012, respectively. The increase in the second quarter of 2013, compared to the same period in 2012, was primarily due to increases of \$0.8 million in personnel expenses, \$0.4 million in legal costs and \$0.2 million in outsourced costs, partially offset by a \$0.3 million decrease in facilities costs.

General and administrative expenses were \$7.4 million and \$5.6 million in the first six months of 2013 and 2012, respectively. The increase in the first six months of 2013, compared to the same period in 2012, was primarily due to increases of \$1.2 million in personnel expenses, \$0.5 million in legal costs and \$0.3 million in outsourced costs, partially offset by a decrease of \$0.5 million in facilities costs.

We expect that general and administrative expenses in 2013 will increase compared to 2012. We anticipate that general and administrative expenses will be in the range of \$17.0 million to \$18.0 million. Non-cash expenses such as stock-based compensation and depreciation of approximately \$2.6 million are included in our estimate of 2013 general and administrative expenses.

Interest and Other, Net

Interest income and other income increased in the second quarter and first six months of 2013 compared to the same periods in 2012, due to higher average effective interest rates and higher average invested balances.

Interest and other expense was insignificant in the second quarter and first six months of both 2013 and 2012.

Income Taxes

We follow the accounting guidance established by the Financial Accounting Standards Board (FASB) which defines the threshold for recognizing the benefits of tax return positions in the financial statements as more-likely-than-not to be sustained by the taxing authorities based solely on the technical merits of the position. If the recognition threshold is met, the tax benefit is measured and recognized as the largest amount of tax benefit that, in our judgment, is greater than 50% likely to be realized.

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We file income tax returns with the United States Internal Revenue Service (IRS) and the state of California. For jurisdictions in which tax filings are made, we are subject to income tax examination for all fiscal years since inception. The IRS 's Large Business and International Division concluded its audit of the 2009 tax year with no material adjustments. We believe that we maintain adequate reserves for uncertain tax positions.

In general, under Internal Revenue Code Section 382 (Section 382), a corporation that undergoes an ownership change is subject to limitations on its ability to utilize its pre-change net operating losses (NOLs) and tax credits to offset future taxable income. We have performed a Section 382 analysis and do not believe that we have experienced an ownership change since 2006. A portion of our existing NOLs and tax credits are subject to limitations arising from previous ownership changes. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 and result in additional limitations.

Critical Accounting Policies

The accounting policies that we consider to be our most critical (i.e., those that are most important to the portrayal of our financial condition and results of operations and that require our most difficult, subjective or complex judgments), the effects of those accounting policies applied and the judgments made in their application are summarized in *Item 7 Management 's Discussion and Analysis of Financial Condition and Results of Operations Critical Accounting Policies and Estimates* in our Annual Report on Form 10-K for the fiscal year ended December 31, 2012. There has been no material change to our critical accounting policies since then.

Recent Accounting Pronouncements

See Note 1, *Recent Accounting Pronouncements* in the Notes to Unaudited Condensed Financial Statements for a discussion of recently adopted accounting pronouncements and accounting pronouncements not yet adopted, and their expected impact on our financial position and results of operations.

Liquidity and Capital Resources

From August 5, 1997, our date of inception, through June 30, 2013, we funded our operations through the sale of equity securities, equipment financings, non-equity payments from collaborators, government grants and interest income.

In June 2013, we and Amgen announced the Amgen Agreement Amendment, which expanded our collaboration to include Japan (see Note 4 to unaudited condensed financial statements). Under the terms of the Amgen Agreement Amendment, we received a non-refundable upfront license fee of \$15 million in June 2013. In conjunction with the Amgen Agreement Amendment, we also entered into a common stock purchase agreement with Amgen pursuant to which we sold 1,404,100 shares common stock to Amgen at a price per share of \$7.12. The aggregate purchase price of \$10.0 million was received in June 2013. We determined the fair value of the stock issued to Amgen to be \$7.5 million. The excess of cash received over fair value of \$2.5 million was deferred and will be recognized as revenue as services are performed over approximately 12 months.

In June 2013, we entered into the Astellas Agreement. (See Note 5 to unaudited condensed financial statements). In July 2013, we received an upfront payment of \$16 million in connection with the execution of the Astellas Agreement. We are eligible to potentially receive over \$24 million in reimbursement of sponsored research and development activities during the initial two years of the collaboration. Based on the achievement of pre-specified criteria, we may receive over \$250 million in milestone payments relating to the development and commercial launch of collaboration products, including up to \$112 million in development and commercial launch milestones for CK-2127107. We may also receive up to \$200 million in payments for achievement of pre-specified sales milestones related to net sales of all collaboration products under the Astellas Agreement. If Astellas commercializes any collaboration products, we will also receive royalties on sales of such collaboration products, including royalties ranging from the high single digits to the high teens on sales of products containing CK-2127107. In addition to the foregoing development, commercial launch and sales milestones, we may also receive payments for the achievement of pre-specified milestones relating to the joint research program.

June 2012 Public Offerings

On June 20, 2012, we entered into underwriting agreements for two separate, concurrent offerings of our securities (the *June 2012 Public Offerings*). On June 25, 2012, pursuant to the underwriting agreements, in aggregate we issued to various investors (i) 9,320,176 shares of common stock for a purchase price of \$4.56 per share, (ii) 23,026 shares of Series B convertible preferred stock (the *Series B Preferred Stock*) for a purchase price of \$760.00 per share, and (iii) warrants to purchase 7,894,704 shares of our common stock at an exercise price of \$5.28 per share, for aggregate gross proceeds of approximately \$60.0 million. After issuance costs of approximately \$4.0 million, the net proceeds from

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the June 2012 Public Offerings were approximately \$56.0 million.

The warrants issued in the June 2012 Public Offerings became exercisable upon issuance and will remain exercisable for five years until June 25, 2017. The warrant holders are prohibited from exercising the warrants and obtaining shares of common stock if, as

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a result of such exercise, the holder and its affiliates would own more than 9.98% of the total number of shares of our common stock then issued and outstanding. We valued the warrants as of the date of issuance at \$16.2 million using the Black-Scholes option pricing model and the following assumptions: a contractual term of five years, a risk-free interest rate of 0.73%, volatility of 76%, and the fair value of our common stock on the issuance date of \$3.78. In February 2013, warrants to purchase 1,000 shares of our common stock at an exercise price of \$5.28 per share were exercised in accordance with the June 2012 Public Offerings underwriting agreements. In April 2013, we issued 358,460 shares of common stock related to cashless exercise of warrants. As of June 30, 2013, warrants to purchase 6,577,928 shares of our common stock were outstanding and exercisable.

In the first quarter of 2013, 4,000 shares of Series B convertible preferred stock were converted into 666,667 shares of our common stock. In the second quarter of 2013, 15,026 shares of Series B convertible preferred stock were converted into 2,504,333 shares of our common stock. In July, 2013, 4,000 shares of Series B convertible preferred stock, which represented all remaining shares of Series B convertible preferred stock, were converted into 666,667 shares of our common stock. The conversions were in accordance with the terms of the original agreement under which the Series B Preferred Stock was issued in 2012.

MLV

On June 10, 2011, we entered into an At-The-Market Issuance Sales Agreement (the *MLV Agreement*) with McNicoll, Lewis & Vlak LLC (*MLV*), pursuant to which we may issue and sell shares of common stock having an aggregate offering price of up to \$20.0 million or 2,397,278 shares, whichever occurs first, from time to time through *MLV* as the sales agent. Our issuance and sale of shares under the *MLV Agreement*, if any, are subject to the continued effectiveness of our registration statement on Form S-3, which was declared effective by the SEC on June 23, 2011 (File No. 333-174869), and the terms and conditions of the *MLV Agreement*. As of December 31, 2012, we had issued a total of 862,592 shares through *MLV* for total net proceeds of approximately \$5.3 million. As of July 26, 2013, there have been no further issuances of shares through *MLV*.

Sources and Uses of Cash

Our cash and cash equivalents, totaled \$17.1 million at June 30, 2013, up from \$14.9 million at December 31, 2012. The increase of \$2.2 million was primarily due to the cash receipts from a licensing transaction partially offset by the use of cash to fund operations.

Net cash used in operating activities was \$5.6 million in the first six months of 2013 and primarily resulted from the net loss of \$27.7 million offset by cash received from licensing transactions. Net cash used in operating activities was \$17.4 million in the first six months of 2012 and primarily resulted from the net loss of \$18.9 million.

Net cash provided by investing activities was \$0.3 million in the first six months of 2013 and primarily consisted of proceeds from the maturity of investments, net of cash used to purchase investments, of \$0.5 million. Net cash provided by investing activities was \$3.5 million in the first six months of 2012 and primarily consisted of proceeds from the maturity of investments, net of cash used to purchase investments, of \$3.4 million.

Net cash provided by financing activities was \$7.5 million in the first six months of 2013 and primarily consisted of the purchase of stock by Amgen (See Note 4 to unaudited condensed financial statements). Net cash provided by financing activities was \$58.7 million in the first six months of 2012 and primarily consisted of net proceeds of \$56.0 million from the sale of 9,320,176 shares of common stock and 23,026 shares of Series B Preferred Stock in the June 2012 Public Offerings and the net proceeds of \$2.8 million from our sale of 432,724 shares of common stock through *MLV*.

Shelf Registration Statement. In November 2011, we filed a shelf registration statement with the SEC, which was declared effective in December 2011 (the *December 2011 Shelf*). The *December 2011 Shelf* allowed us to issue securities from time to time for an aggregate offering price of up to \$100.0 million. In June 2012, we filed a supplemental shelf registration statement with the SEC, which was declared effective in June 2012 (the *Supplemental Shelf*). The *Supplemental Shelf* allows us to issue additional securities from time to time for an aggregate offering price of up to \$20.0 million, and for a total aggregate offering price under the *December 2011 Shelf* and the *Supplemental Shelf* of up to \$120.0 million. As of July 26, 2013, \$18.3 million remains available to us under these shelf registration statements. The specific terms of offerings, if any, under these shelf registration statements will be established at the time of such offerings.

As of June 30, 2013, future minimum payments under our lease obligations were as follows (in thousands):

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	Within One Year	One to Three Years	Three to Five Years	After Five Years	Total
Operating leases (1)	\$ 3,267	\$ 6,940	\$ 7,428	\$	\$ 17,635

- (1) Our long-term commitment under operating lease relates to payments under our facility lease in South San Francisco, California, which expires in 2018.

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In future periods, we expect to incur substantial costs as we continue to expand our research programs and related research and development activities. We plan to continue clinical development of our fast skeletal muscle troponin activator, tirasemtiv, for the potential treatment of ALS and other neuromuscular disorders. As part of our strategic alliance with Astellas, we expect to continue the development of our skeletal muscle troponin activator CK-2127107 for the potential treatment of non-neuromuscular indications associated with skeletal muscle weakness. We plan to continue to support the clinical development of our cardiac muscle myosin activator, omecamtiv mecarbil, for the potential treatment of heart failure and research of potential next-generation compounds as part of our strategic alliance with Amgen. We expect to incur significant research and development expenses as we advance the research and development of compounds from our other muscle biology programs through research to candidate selection.

Our future capital uses and requirements depend on numerous factors. These factors include, but are not limited to, the following:

the initiation, progress, timing, scope and completion of preclinical research, non-clinical development and clinical trials for our drug candidates and other compounds;

the time and costs involved in obtaining regulatory approvals;

delays that may be caused by requirements of regulatory agencies;

Amgen's decisions with regard to funding of development and commercialization of omecamtiv mecarbil or other compounds for the potential treatment of heart failure under our collaboration;

Astellas' decisions with regard to funding of development and commercialization of CK-2127107 or other compounds for the potential treatment of non-neuromuscular indications associated with skeletal muscle weakness under our collaboration;

our level of funding for the development of current or future drug candidates;

the number of drug candidates we pursue;

the costs involved in filing and prosecuting patent applications and enforcing or defending patent claims;

our ability to establish and maintain selected strategic alliances required for the development of drug candidates and commercialization of our potential drugs;

our plans or ability to expand our drug development capabilities, including our capabilities to conduct clinical trials for our drug candidates;

our plans or ability to engage third party manufacturers for our drug candidates and potential drugs;

our plans or ability to build or access sales and marketing capabilities and to achieve market acceptance for potential drugs;

the expansion and advancement of our research programs;

the hiring of additional employees and consultants;

the expansion of our facilities;

the acquisition of technologies, products and other business opportunities that require financial commitments; and

our revenues, if any, from successful development of our drug candidates and commercialization of potential drugs.

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We have incurred an accumulated deficit of \$476.6 million since inception and there can be no assurance that we will attain profitability. We are subject to risks common to development stage companies including, but not limited to, development of new drug candidates, dependence on key personnel, and the ability to obtain additional capital as needed to fund our future plans. Our liquidity will be impaired if sufficient additional capital is not available on terms acceptable to us, if at all. To date, we have funded our operations primarily through sales of our common stock and convertible preferred stock, contract payments under our collaboration agreements, debt financing arrangements, government grants and interest income. Until we achieve profitable operations, we intend to continue to fund operations through payments from strategic collaborations, additional sales of equity securities, government grants and debt financings. We have never generated revenues from commercial sales of our drugs and may not have drugs to market for at least several years, if ever. Our success is dependent on our ability to obtain additional capital by entering into new strategic collaborations and/or through equity or debt financings, and ultimately on our and our collaborators' ability to successfully develop and market one or more of our drug candidates. We cannot be certain that sufficient funds will be available from such collaborators or financings when needed or on satisfactory terms. Additionally, there can be no assurance that any of drugs based on our drug candidates will be accepted in the marketplace or that any future products can be developed or manufactured at an acceptable cost. These factors could have a material adverse effect on our future financial results, financial position and cash flows.

Based on the current status of our development plans, we believe that our existing cash and cash equivalents, investments and interest earned on investments will be sufficient to meet our projected operating requirements for at least the next 12 months. If, at any

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time, our prospects for internally financing our research and development programs decline, we may decide to reduce research and development expenses by delaying, discontinuing or reducing our funding of development of one or more of our drug candidates or of other research and development programs. Alternatively, we might raise funds through strategic relationships, public or private financings or other arrangements. There can be no assurance that funding, if needed, will be available on attractive terms, or at all, or in accordance with our planned timelines. Furthermore, financing obtained through future strategic relationships may require us to forego certain commercialization and other rights to our drug candidates. Similarly, any additional equity financing may be dilutive to stockholders and debt financing, if available, may involve restrictive covenants. Our failure to raise capital as and when needed could have a negative impact on our financial condition and our ability to pursue our business strategy.

Off-Balance Sheet Arrangements

We are not party to any off-balance sheet arrangements that have, or are reasonably likely to have, a material current or future effect on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our exposure to market risk has not changed materially since our disclosures in Item 7A, Quantitative and Qualitative Disclosures About Market Risk in our Annual Report on Form 10-K for the year ended December 31, 2012.

ITEM 4. CONTROLS AND PROCEDURES

(a) Evaluation of disclosure controls and procedures

Our management evaluated, with the participation and under the supervision of our Chief Executive Officer and our Chief Financial Officer, the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded, subject to the limitations described below, that our disclosure controls and procedures are effective to ensure that information we are required to disclose in reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms, and that such information is accumulated and communicated to management as appropriate to allow timely decisions regarding required disclosures.

(b) Changes in internal control over financial reporting

There was no change in our internal control over financial reporting that occurred during the period covered by this report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

(c) Limitations on the effectiveness of controls

A control system, no matter how well-conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the controls are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, if any, within a company have been detected. Accordingly, our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the objectives of our disclosure control system are met.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

None.

ITEM 1A. RISK FACTORS

In evaluating our business, you should carefully consider the following risks in addition to the other information in this report. Any of the following risks could materially and adversely affect our business, results of operations, financial condition or your investment in our securities, and many are beyond our control. The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also adversely affect our business.

Risks Related To Our Business

We have a history of significant losses and may not achieve or sustain profitability and, as a result, you may lose all or part of your investment.

We have generally incurred operating losses in each year since our inception in 1997, due to costs incurred in connection with our research and development activities and general and administrative costs associated with our operations. Our drug candidates are all in early and mid-stage clinical testing, and we and our partners must conduct significant additional clinical trials before we and our

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partners can seek the regulatory approvals necessary to begin commercial sales of our drugs. We expect to incur increasing losses for at least several more years, as we continue our research activities and conduct development of, and seek regulatory approvals for, our drug candidates, and commercialize any approved drugs. If our drug candidates fail or do not gain regulatory approval, or if our drugs do not achieve market acceptance, we will not be profitable. If we fail to become and remain profitable, or if we are unable to fund our continuing losses, you could lose all or part of your investment.

We will need substantial additional capital in the future to sufficiently fund our operations.

We have consumed substantial amounts of capital to date, and our operating expenditures will increase over the next several years if we expand our research and development activities. We have funded all of our operations and capital expenditures with proceeds from private and public sales of our equity securities, strategic alliances with Amgen Inc., Astellas Pharma Inc. (Astellas) and others, equipment financings, interest on investments and government grants. We believe that our existing cash and cash equivalents, short-term investments and interest earned on investments should be sufficient to meet our projected operating requirements for at least the next 12 months. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development of our drug candidates and other research and development activities, including risks and uncertainties that could impact the rate of progress of our development activities, we are unable to estimate with certainty the amounts of capital outlays and operating expenditures associated with these activities.

For the foreseeable future, our operations will require significant additional funding, in large part due to our research and development expenses and the absence of any revenues from product sales. For example, we anticipate that we will need to conduct at least one Phase III clinical trial for tirasemtiv following the BENEFIT-ALS trial in order to obtain marketing approval for tirasemtiv for the potential treatment of ALS. We will require significant additional funding to enable us to conduct any such Phase III clinical trials. Until we can generate a sufficient amount of product revenue, we expect to raise future capital through strategic alliance and licensing arrangements, public or private equity offerings and debt financings. We do not currently have any commitments for future funding other than reimbursements, milestone and royalty payments that we may receive under our collaboration agreements with Amgen and Astellas. We may not receive any further funds under that agreement. Our ability to raise funds may be adversely impacted by current economic conditions. As a result of these and other factors, we do not know whether additional financing will be available when needed, or that, if available, such financing would be on terms favorable to our stockholders or us.

To the extent that we raise additional funds through strategic alliances or licensing and other arrangements with third parties, we will likely have to relinquish valuable rights to our technologies, research programs or drug candidates, or grant licenses on terms that may not be favorable to us. To the extent that we raise additional funds by issuing equity securities, our stockholders will experience additional dilution. To the extent that we raise additional funds through debt financing, the financing may involve covenants that restrict our business activities. In addition, funding from any of these sources, if needed, may not be available to us on favorable terms, or at all, or in accordance with our planned timelines.

If we cannot raise the funds we need to operate our business, we will need to delay or discontinue certain research and development activities. For example, if we cannot raise the funds necessary to enable the conduct of the one or more Phase III clinical trials for tirasemtiv for the potential treatment of ALS that we anticipate will be required for marketing approval, our ability to complete the development of tirasemtiv will be delayed or suspended. In October 2011, we announced a restructuring plan to focus resources primarily on the later-stage development programs for tirasemtiv and omeceamtiv mecarbil and certain other research and development programs also directed to muscle biology. As a result, we reduced our workforce by approximately eighteen percent, and discontinued our research and development activities outside these areas of focus. If we delay or discontinue research and development activities, our stock price may be negatively affected.

We have never generated, and may never generate, revenues from commercial sales of our drugs and we will not have drugs to market for at least several years, if ever.

We currently have no drugs for sale and we cannot guarantee that we will ever develop or obtain approval to market any drugs. To receive marketing approval for any drug candidate, we must demonstrate that the drug candidate satisfies rigorous standards of safety and efficacy to the FDA in the United States and other regulatory authorities abroad. We and our partners will need to conduct significant additional research and preclinical and clinical testing before we or our partners can file applications with the FDA or other regulatory authorities for approval of any of our drug candidates. In addition, to compete effectively, our drugs must be easy to use, cost-effective and economical to manufacture on a commercial scale, compared to other therapies available for the treatment of the same conditions. We may not achieve any of these objectives. Currently, our only drug candidates in clinical development are omeceamtiv mecarbil for the potential treatment of heart failure, tirasemtiv for the potential treatment of ALS and other neuromuscular disorders and CK-2127107 for the potential treatment of non-neuromuscular indications associated with muscle weakness. We cannot be certain that the clinical development of these or any future drug candidates will be successful, that they will receive the regulatory approvals required to commercialize them, or that any of our other research programs will yield a drug candidate suitable for clinical testing or commercialization. Our commercial revenues, if any, will be derived from sales of drugs that we do not

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expect to be commercially marketed for at least several years, if at all. The development of any one or all of these drug candidates may be discontinued at any stage of our clinical trials programs and we may not generate revenue from any of these drug candidates.

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Clinical trials may fail to demonstrate the desired safety and efficacy of our drug candidates, which could prevent or significantly delay completion of clinical development and regulatory approval.

Prior to receiving approval to commercialize any of our drug candidates, we or our partners must adequately demonstrate to the satisfaction of FDA and foreign regulatory authorities that the drug candidate is sufficiently safe and effective with substantial evidence from well-controlled clinical trials. We or our partners will need to demonstrate efficacy in clinical trials for the treatment of specific indications and monitor safety throughout the clinical development process and following approval. None of our drug candidates have yet been demonstrated to be safe and effective in clinical trials and they may never be. In addition, for each of our preclinical compounds, we or our partners must adequately demonstrate satisfactory chemistry, formulation, stability and toxicity in order to submit an investigational new drug application (IND) to the FDA, or an equivalent application in foreign jurisdictions, that would allow us to advance that compound into clinical trials. Furthermore, we or our partners may need to submit separate INDs (or foreign equivalent) to different divisions within the FDA (or foreign regulatory authorities) in order to pursue clinical trials in different therapeutic areas. Each new IND (or foreign equivalent) must be reviewed by the new division before the clinical trial under its jurisdiction can proceed, entailing all the risks of delay inherent to regulatory review. If our or our partners' current or future preclinical studies or clinical trials are unsuccessful, our business will be significantly harmed and our stock price could be negatively affected.

All of our drug candidates are prone to the risks of failure inherent in drug development. Preclinical studies may not yield results that would adequately support the filing of an IND (or a foreign equivalent) with respect to our potential drug candidates. Even if the results of preclinical studies for a drug candidate are sufficient to support such a filing, the results of preclinical studies do not necessarily predict the results of clinical trials. As an example, because the physiology of animal species used in preclinical studies may vary substantially from other animal species and from humans, it may be difficult to assess with certainty whether a finding from a study in a particular animal species will result in similar findings in other animal species or in humans. For any of our drug candidates, the results from Phase I clinical trials in healthy volunteers and clinical results from Phase I and II trials in patients are not necessarily indicative of the results of larger Phase III clinical trials that are necessary to establish whether the drug candidate is safe and effective for the applicable indication. Likewise, interim results from a clinical trial may not be indicative of the final results from that trial.

In addition, while the clinical trials of our drug candidates are designed based on the available relevant information, such information may not accurately predict what actually occurs during the course of the trial itself, which may have consequences for the conduct of an ongoing clinical trial or for the eventual results of that trial. For example, the number of patients planned to be enrolled in a placebo-controlled clinical trial is determined in part by estimates relating to expected treatment effect and variability about the primary endpoint. These estimates are based upon earlier nonclinical and clinical studies of the drug candidate itself and clinical trials of other drugs thought to have similar effects in a similar patient population. If information gained during the conduct of the trial shows these estimates to be inaccurate, we may elect to adjust the enrollment accordingly, which may cause delays in completing the trial, additional expense or a statistical penalty to apply to the evaluation of the trial results.

Furthermore, in view of the uncertainties inherent in drug development, such clinical trials may not be designed with focus on indications, patient populations, dosing regimens, safety or efficacy parameters or other variables that will provide the necessary safety or efficacy data to support regulatory approval to commercialize the resulting drugs. Clinical trials of our drug candidates are designed based on guidance or advice from regulatory agencies, which is subject to change during the development of the drug candidate at any time. Such a change in a regulatory agency's guidance or advice may cause that agency to deem results from trials to be insufficient to support approval of the drug candidate and require further clinical trials of that drug candidate to be conducted. In addition, individual patient responses to the dose administered of a drug may vary in a manner that is difficult to predict. Also, the methods we select to assess particular safety or efficacy parameters may not yield the same statistical precision in estimating our drug candidates' effects as may other methodologies. Even if we believe the data collected from clinical trials of our drug candidates are promising, these data may not be sufficient to support approval by the FDA or foreign regulatory authorities. Preclinical and clinical data can be interpreted in different ways. Accordingly, the FDA or foreign regulatory authorities could interpret these data in different ways from us or our partners, which could delay, limit or prevent regulatory approval.

Administering any of our drug candidates or potential drug candidates may produce undesirable side effects, also known as adverse effects. Toxicities and adverse effects observed in preclinical studies for some compounds in a particular research and development program may also occur in preclinical studies or clinical trials of other compounds from the same program. Potential toxicity issues may arise from the effects of the active pharmaceutical ingredient itself or from impurities or degradants that are present in the active pharmaceutical ingredient or could form over time in the formulated drug candidate or the active pharmaceutical ingredient. These toxicities or adverse effects could delay or prevent the filing of an IND (or a foreign equivalent) with respect to our drug candidates or potential drug candidates or cause us or our partners to modify, suspend or terminate clinical trials with respect to any drug candidate at any time during the development program. Further, the administration of two or more drugs contemporaneously

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can lead to interactions between them, and our drug candidates may interact with other drugs that trial subjects are taking. For example, in a Phase I drug-drug interaction study of tirasemtiv administered orally to healthy volunteers, co-administration of tirasemtiv and riluzole (an approved treatment for ALS) approximately doubled the average maximum riluzole plasma level, although it also appeared to reduce the variability of the riluzole plasma levels of the study subjects. The FDA, other regulatory authorities, our partners or we may modify, suspend or terminate clinical trials with our drug candidates at any time. If these or other adverse effects are severe or frequent enough to outweigh the potential efficacy of a drug candidate, the FDA or other regulatory authorities could deny approval of that drug candidate for any or all targeted indications. Even if one or more of our drug candidates were approved for sale as drugs, the occurrence of even a limited number of toxicities or adverse effects when used in large populations may cause the FDA to impose restrictions on, or stop, the further marketing of those drugs. Indications of potential adverse effects or toxicities which do not seem significant during the course of clinical trials may later turn out to actually constitute serious adverse effects or toxicities when a drug is used in large populations or for extended periods of time.

We have observed certain adverse effects in the clinical trials conducted with our drug candidates. For example, in Phase II clinical trials of tirasemtiv, adverse events of dizziness, fatigue, headache, somnolence (sleepiness), euphoric mood, muscle spasms, gait disturbance, pain in extremity, feeling drunk, blurred vision, muscular weakness, nausea, balance disorder, asthenia (loss of strength and energy), abnormal coordination and dysarthria (difficulty speaking) occurred more frequently during treatment with tirasemtiv than with placebo, with a possible trend for their frequencies to increase with increasing doses of tirasemtiv. In clinical trials of omecamtiv mecarbil, dose-limiting effects were associated with complaints of chest discomfort, palpitations, dizziness and feeling hot, increases in heart rate, declines in blood pressure, electrocardiographic changes consistent with acute myocardial ischemia and transient rises in the MB fraction of creatine kinase and cardiac troponins I and T, which are indicative of myocardial infarction.

In addition, clinical trials of tirasemtiv and omecamtiv mecarbil enroll patients who typically suffer from serious diseases which put them at increased risk of death. These patients may die while receiving our drug candidates. In such circumstances, it may not be possible to exclude with certainty a causal relationship to our drug candidate, even though the responsible clinical investigator may view such an event as not study drug-related.

Any failure or significant delay in completing preclinical studies or clinical trials for our drug candidates, or in receiving and maintaining regulatory approval for the sale of any resulting drugs, may significantly harm our business and negatively affect our stock price.

Clinical trials are expensive, time-consuming and subject to delay.

Clinical trials are subject to rigorous regulatory requirements and are very expensive, difficult and time-consuming to design and implement. The length of time and number of trial sites and patients required for clinical trials vary substantially based on the type, complexity, novelty, intended use of the drug candidate and safety concerns. We estimate that the clinical trials of our current drug candidates will each continue for several more years. However, the clinical trials for all or any of these drug candidates may take significantly longer to complete. The commencement and completion of our clinical trials could be delayed or prevented by many factors, including, but not limited to:

delays in obtaining, or inability to obtain, regulatory or other approvals to commence and conduct clinical trials in the manner we or our partners deem necessary for the appropriate and timely development of our drug candidates and commercialization of any resulting drugs;

delays in identifying and reaching agreement, or inability to identify and reach agreement, on acceptable terms, with prospective clinical trial sites and other entities involved in the conduct of our clinical trials;

delays or additional costs in developing, or inability to develop, appropriate formulations of our drug candidates for clinical trial use, including an appropriate modified release oral formulation for omecamtiv mecarbil;

slower than expected rates of patient recruitment and enrollment, including as a result of competition for patients with other clinical trials; limited numbers of patients that meet the enrollment criteria; patients', investigators' or trial sites' reluctance to agree to the requirements of a protocol; or the introduction of alternative therapies or drugs by others;

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for those drug candidates that are the subject of a strategic alliance, delays in reaching agreement with our partner as to appropriate development strategies;

a regulatory authority may require changes to a protocol for a clinical trial that then may require approval from regulatory agencies in other jurisdictions where the trial is being conducted;

an institutional review board (IRB) or its foreign equivalent may require changes to a protocol that then require approval from regulatory agencies and other IRBs and their foreign equivalents, or regulatory authorities may require changes to a protocol that then require approval from the IRBs or their foreign equivalents;

for clinical trials conducted in foreign countries, the time and resources required to identify, interpret and comply with foreign regulatory requirements or changes in those requirements, and political instability or natural disasters occurring in those countries;

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lack of effectiveness of our drug candidates during clinical trials;

unforeseen safety issues;

inadequate supply, or delays in the manufacture or supply, of clinical trial materials;

uncertain dosing issues;

failure by us, our partners, or clinical research organizations, investigators or site personnel engaged by us or our partners to comply with good clinical practices and other applicable laws and regulations, including those concerning informed consent;

inability or unwillingness of investigators or their staffs to follow clinical protocols;

failure by our clinical research organizations, clinical manufacturing organizations and other third parties supporting our clinical trials to fulfill their obligations;

inability to monitor patients adequately during or after treatment;

introduction of new therapies or changes in standards of practice or regulatory guidance that render our drug candidates or their clinical trial endpoints obsolete; and

results from non-clinical studies that may adversely impact the timing or further development of our drug candidates.

We do not know whether planned clinical trials will begin on time, or whether planned or currently ongoing clinical trials will need to be restructured or will be completed on schedule, if at all. Significant delays in clinical trials will impede our ability to commercialize our drug candidates and generate revenue and could significantly increase our development costs.

We depend on Amgen for the conduct, completion and funding of the clinical development and commercialization of omecamtiv mecarbil.

Under our strategic alliance, Amgen holds an exclusive license to our drug candidate omecamtiv mecarbil worldwide. As a result, Amgen is responsible for the clinical development and obtaining and maintaining regulatory approval of omecamtiv mecarbil for the potential treatment of heart failure worldwide.

We do not control the clinical development activities being conducted or that may be conducted in the future by Amgen, including, but not limited to, the timing of initiation, termination or completion of clinical trials, the analysis of data arising out of those clinical trials or the timing of release of data concerning those clinical trials, which may impact our ability to report on Amgen's results. Amgen may conduct these activities more slowly or in a different manner than we would if we controlled the clinical development of omecamtiv mecarbil. Amgen is responsible for filing future applications with the FDA or other regulatory authorities for approval of omecamtiv mecarbil and will be the owner of any marketing approvals issued by the FDA or other regulatory authorities for omecamtiv mecarbil. If the FDA or other regulatory authorities approve omecamtiv mecarbil, Amgen will also be responsible for the marketing and sale of the resulting drug, subject to our right to co-promote omecamtiv mecarbil in North America if we exercise our option to co-fund Phase III development costs of omecamtiv mecarbil under the collaboration. However, we cannot control whether Amgen will devote sufficient attention and resources to the clinical development of omecamtiv mecarbil or will proceed in an expeditious manner, even if we do exercise our option to co-fund the development of omecamtiv mecarbil. Even if the FDA or other regulatory agencies approve omecamtiv mecarbil, Amgen may elect not to proceed with the commercialization of the resulting drug in one or more countries.

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If the results of one or more clinical trials with omecamtiv mecarbil do not meet Amgen's expectations at any time, Amgen may elect to terminate further development of omecamtiv mecarbil or certain of the potential clinical trials for omecamtiv mecarbil, even if the actual number of patients treated at that time is relatively small. In addition, Amgen generally has discretion to elect whether to pursue or abandon the development of omecamtiv mecarbil and may terminate our strategic alliance for any reason upon six months prior notice. If Amgen abandons omecamtiv mecarbil, it would result in a delay in or could prevent us from commercializing omecamtiv mecarbil, and would delay and could prevent us from obtaining revenues for this drug candidate. Disputes may arise between us and Amgen, which may delay or cause the termination of any omecamtiv mecarbil clinical trials, result in significant litigation or cause Amgen to act in a manner that is not in our best interest. If development of omecamtiv mecarbil does not progress for these or any other reasons, we would not receive further milestone payments or royalties on product sales from Amgen with respect to omecamtiv mecarbil. If Amgen abandons development of omecamtiv mecarbil prior to regulatory approval or if it elects not to proceed with commercialization of the resulting drug following regulatory approval, we would have to seek a new partner for clinical development or commercialization, curtail or abandon that clinical development or commercialization, or undertake and fund the clinical development of omecamtiv mecarbil or commercialization of the resulting drug ourselves. If we seek a new partner but are unable to do so on acceptable terms, or at all, or do not have sufficient funds to conduct the development or commercialization of omecamtiv mecarbil ourselves, we would have to curtail or abandon that development or commercialization, which could harm our business.

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We will depend on Astellas for the conduct, completion and funding of the clinical development and commercialization of CK-2127107.

In June 2013, we entered into a strategic alliance with Astellas focused on the research, development and commercialization of skeletal muscle activators, other than tirasemtiv and certain related compounds. The primary objective of the collaboration is to advance novel therapies for indications associated with muscle weakness.

As part of the strategic alliance, we have granted Astellas an exclusive license to co-develop and commercialize CK-2127107 for potential application in non-neuromuscular indications worldwide. Following Cytokinetics' conduct of Phase I clinical trials and certain Phase II readiness activities for CK-2127107, Astellas will be primarily responsible for the conduct of subsequent development and commercialization activities for CK-2127107. Astellas may elect not to continue development of CK-2127107 following Cytokinetics' completion of these activities. In such event, we would need significant additional funding to continue the development of CK-2127107 on our own, which may not be available on attractive or acceptable terms, if at all, and we would be limited in the indications that we could pursue with this drug candidate.

We do not control the clinical development activities that may be conducted by Astellas, including, but not limited to, the timing of initiation, termination or completion of clinical trials, the analysis of data arising out of those clinical trials or the timing of release of data concerning those clinical trials, which may impact our ability to report on Astellas' results. Astellas may conduct these activities more slowly or in a different manner than we would. Astellas is responsible for filing future applications with the FDA or other regulatory authorities for approval of CK-2127107 and will be the owner of any marketing approvals issued by the FDA or other regulatory authorities for CK-2127107. If the FDA or other regulatory authorities approve CK-2127107, Astellas will also be responsible for the marketing and sale of the resulting drug, subject to our right to co-promote the drug in the United States and Canada. However, we cannot control whether Astellas will devote sufficient attention and resources to the clinical development of CK-2127107 or will proceed in an expeditious manner. Even if the FDA or other regulatory agencies approve CK-2127107, Astellas may elect not to proceed with the commercialization of the resulting drug in one or more countries.

If the results of one or more clinical trials with CK-2127107 do not meet Astellas' expectations at any time, Astellas may elect to terminate further development of CK-2127107 or certain of the potential clinical trials for CK-2127107, even if the actual number of patients treated at that time is relatively small. In addition, Astellas generally has discretion to elect whether to pursue or abandon the development of CK-2127107. Astellas may terminate our strategic alliance in whole or in part for any reason upon six months prior notice at any time following expiration of the collaboration's two-year research term. If Astellas abandons CK-2127107, it would result in a delay in or could prevent us from further developing or commercializing CK-2127107, and would delay and could prevent us from obtaining revenues for this drug candidate. Disputes may arise between us and Astellas, which may delay or cause the termination of any CK-2127107 clinical trials, result in significant litigation or cause Astellas to act in a manner that is not in our best interest. If development of CK-2127107 does not progress for these or any other reasons, we would not receive further milestone payments or royalties on product sales from Astellas with respect to CK-2127107. If Astellas abandons development of CK-2127107 prior to regulatory approval or if it elects not to proceed with commercialization of the resulting drug following regulatory approval, we would have to seek a new partner for clinical development or commercialization, curtail or abandon that clinical development or commercialization, or undertake and fund the clinical development of CK-2127107 or commercialization of the resulting drug ourselves. If we seek a new partner but are unable to do so on acceptable terms, or at all, or do not have sufficient funds to conduct the development or commercialization of CK-2127107 ourselves, we would have to curtail or abandon that development or commercialization, which could harm our business.

If we fail to enter into successful strategic alliances for our unpartnered drug candidates or research and development programs or maintain our current or future strategic alliances, we may have to reduce, delay or discontinue our advancement of our drug candidates and programs or expand our research and development capabilities and increase our expenditures.

Drug development is complicated and expensive. We currently have limited financial and operational resources to carry out drug development. Our strategy for developing, manufacturing and commercializing our drug candidates currently requires us to enter into and successfully maintain strategic alliances with pharmaceutical companies or other industry participants to advance our programs and reduce our expenditures on each program. Accordingly, the success of our development activities depends in large part on our current and future strategic partners' performance, over which we have little or no control.

We have retained all rights to develop and commercialize tirasemtiv. We currently do not have a strategic partner for this drug candidate. We may seek one or more strategic partners or other arrangements with third parties to support Phase III clinical development and commercialization of tirasemtiv. However, we may not be able to negotiate and enter into such strategic alliances or arrangements on acceptable terms, if at all, or in accordance with our planned timelines. If we are unable to enter into a strategic alliance for tirasemtiv, we will be unable to conduct the one or more Phase III clinical trials we believe will be necessary to obtain marketing approval for tirasemtiv for the potential treatment of ALS unless we are able to acquire the funding to do so from another source.

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Our ability to commercialize drugs that we develop with our partners and that generate royalties from product sales depends on our partners' abilities to assist us in establishing the safety and efficacy of our drug candidates, obtaining and maintaining regulatory approvals and achieving market acceptance of the drugs once commercialized. Our partners may elect to delay or terminate development of one or more drug candidates, independently develop drugs that could compete with ours or fail to commit sufficient resources to the marketing and distribution of drugs developed through their strategic alliances with us. Our partners may not proceed with the development and commercialization of our drug candidates with the same degree of urgency as we would because of other priorities they face. In addition, new business combinations or changes in a partner's business strategy may adversely affect its willingness or ability to carry out its obligations under a strategic alliance.

If we are not able to successfully maintain our existing strategic alliances or establish and successfully maintain additional strategic alliances, we will have to limit the size or scope of, or delay or discontinue, one or more of our drug development programs or research programs, or undertake and fund these programs ourselves. Alternatively, if we elect to continue to conduct any of these drug development programs or research programs on our own, we will need to expand our capability to conduct clinical development by bringing additional skills, technical expertise and resources into our organization. This would require significant additional funding, which may not be available to us on acceptable terms, or at all.

To the extent we elect to fund the development of a drug candidate, such as omecamtiv mecarbil, tirasemtiv or CK-2127107, or the commercialization of a drug at our expense, we will need substantial additional funding.

The discovery, development and commercialization of new drugs is costly. As a result, to the extent we elect to fund the development of a drug candidate, such as omecamtiv mecarbil, tirasemtiv or CK-2127107, or the commercialization of a drug, we will need to raise additional capital to:

fund clinical trials and seek regulatory approvals;

expand our development capabilities;

engage third party manufacturers for such drug candidate or drug;

build or access commercialization capabilities;

implement additional internal systems and infrastructure;

maintain, defend and expand the scope of our intellectual property; and

hire and support additional management and scientific personnel.

Our future funding requirements will depend on many factors, including, but not limited to:

the rate of progress and costs of our clinical trials and other research and development activities;

the costs and timing of seeking and obtaining regulatory approvals;

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the costs associated with establishing manufacturing and commercialization capabilities;

the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;

the costs of acquiring or investing in businesses, products and technologies;

the effect of competing technological and market developments; and

the status of, payment and other terms, and timing of any strategic alliance, licensing or other arrangements that we have entered into or may establish.

Until we can generate a sufficient amount of product revenue to finance our cash requirements, which we may never do, we expect to continue to finance our future cash needs primarily through strategic alliances, public or private equity offerings and debt financings. We cannot be certain that additional funding will be available on acceptable terms, or at all. If we are not able to secure additional funding when needed, we may have to delay, reduce the scope of or eliminate one or more of our clinical trials or research and development programs or future commercialization initiatives.

We depend on contract research organizations to conduct our clinical trials and have limited control over their performance.

We have used and intend to continue to use contract research organizations (CROs) within and outside of the United States to conduct clinical trials of our drug candidates, such as tirasemtiv and CK-2127107, and related activities. We do not have control over many aspects of our CROs activities, and cannot fully control the amount, timing or quality of resources that they devote to our programs. CROs may not assign as high a priority to our programs or pursue them as diligently as we would if we were undertaking these programs ourselves. The activities conducted by our CROs therefore may not be completed on schedule or in a satisfactory manner. CROs may also give higher priority to relationships with our competitors and potential competitors than to their relationships with us. Outside of the United States, we are particularly dependent on our CROs expertise in communicating with clinical trial sites and regulatory authorities and ensuring that our clinical trials and related activities and regulatory filings comply with applicable laws.

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Our CROs' failure to carry out development activities on our behalf as agreed and according to our and the FDA's or other regulatory agencies' requirements and in accordance with applicable U.S. and foreign laws, or our failure to properly coordinate and manage these activities, could increase the cost of our operations and delay or prevent the development, approval and commercialization of our drug candidates. For example, in June 2013 we learned from our data management vendor for our BENEFIT-ALS clinical trial that a programming error in the electronic data capture system controlling study drug assignment caused 58 patients initially randomized to and treated with tirasemtiv to receive placebo instead at a certain trial visit and for the remainder of the trial. In order to maintain the originally intended statistical power of the trial, we amended the protocol to permit enrollment of approximately 680 patients, or 180 patients in addition to the 500 patients allowed under the existing protocol. This protocol amendment will result in additional costs and delays in conducting BENEFIT-ALS. In addition, if a CRO fails to perform as agreed, our ability to collect damages may be contractually limited. If we fail to effectively manage the CROs carrying out the development of our drug candidates or if our CROs fail to perform as agreed, the commercialization of our drug candidates will be delayed or prevented.

We have no manufacturing capacity and depend on our strategic partners and contract manufacturers to produce our clinical trial materials, including our drug candidates, and anticipate continued reliance on contract manufacturers for the development and commercialization of our potential drugs.

We do not currently operate manufacturing facilities for clinical or commercial production of our drug candidates. We have limited experience in drug formulation and manufacturing, and we lack the resources and the capabilities to manufacture any of our drug candidates on a clinical or commercial scale. Amgen has assumed responsibility to conduct these activities for the ongoing clinical development of omeamtiv mecarbil worldwide. Following our conduct of the Phase I clinical trials for CK-2127107, Astellas will assume responsibility to conduct these activities for the ongoing clinical development of CK-2127107 worldwide. For tirasemtiv, we rely on a limited number of contract manufacturers. In particular, we rely on single-source contract manufacturers for the active pharmaceutical ingredient and the drug product supply for our clinical trials, as well as other materials required to conduct our clinical trials. We expect to rely on contract manufacturers to supply all future drug candidates for which we conduct clinical development, as well as other materials required to conduct our clinical trials. If any of our existing or future contract manufacturers fail to perform satisfactorily, it could delay clinical development or regulatory approval of our drug candidates or commercialization of our drugs, producing additional losses and depriving us of potential product revenues. In addition, if a contract manufacturer fails to perform as agreed, our ability to collect damages may be contractually limited.

Our drug candidates require precise high-quality manufacturing. The failure to achieve and maintain high manufacturing standards, including failure to detect or control anticipated or unanticipated manufacturing errors or the frequent occurrence of such errors, could result in patient injury or death, discontinuance or delay of ongoing or planned clinical trials, delays or failures in product testing or delivery, cost overruns, product recalls or withdrawals and other problems that could seriously hurt our business. Contract drug manufacturers often encounter difficulties involving production yields, quality control and quality assurance and shortages of qualified personnel. These manufacturers are subject to stringent regulatory requirements, including the FDA's current good manufacturing practices regulations and similar foreign laws and standards. Each contract manufacturer must pass a pre-approval inspection before we can obtain marketing approval for any of our drug candidates and following approval will be subject to ongoing periodic unannounced inspections by the FDA, the U.S. Drug Enforcement Agency and other regulatory agencies, to ensure strict compliance with current good manufacturing practices and other applicable government regulations and corresponding foreign laws and standards. We seek to ensure that our contract manufacturers comply fully with all applicable regulations, laws and standards. However, we do not have control over our contract manufacturers' compliance with these regulations, laws and standards. If one of our contract manufacturers fails to pass its pre-approval inspection or maintain ongoing compliance at any time, the production of our drug candidates could be interrupted, resulting in delays or discontinuance of our clinical trials, additional costs and potentially lost revenues. In addition, failure of any third party manufacturers or us to comply with applicable regulations, including pre- or post-approval inspections and the current good manufacturing practice requirements of the FDA or other comparable regulatory agencies, could result in sanctions being imposed on us. These sanctions could include fines, injunctions, civil penalties, failure of regulatory authorities to grant marketing approval of our products, delay, suspension or withdrawal of approvals, license revocation, product seizures or recalls, operational restrictions and criminal prosecutions, any of which could significantly and adversely affect our business.

In addition, our existing and future contract manufacturers may not perform as agreed or may not remain in the contract manufacturing business for the time required to successfully produce, store and distribute our drug candidates. If a natural disaster, business failure, strike or other difficulty occurs, we may be unable to replace these contract manufacturers in a timely or cost-effective manner and the production of our drug candidates would be interrupted, resulting in delays and additional costs.

Switching manufacturers or manufacturing sites would be difficult and time-consuming because the number of potential manufacturers is limited. In addition, before a drug from any replacement manufacturer or manufacturing site can be commercialized, the FDA and, in some cases, foreign regulatory agencies, must approve that site. These approvals would require regulatory testing and compliance inspections. A new manufacturer or manufacturing site also would have to be educated in, or develop substantially equivalent processes for, production of our drugs and drug candidates. It may be difficult or impossible to transfer certain elements of a manufacturing process to a new manufacturer or for us to

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find a replacement manufacturer on acceptable terms quickly, or at all, either of which would delay or prevent our ability to develop drug candidates and commercialize any resulting drugs.

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We may not be able to successfully scale-up manufacturing of our drug candidates in sufficient quality and quantity, which would delay or prevent us from developing our drug candidates and commercializing resulting approved drugs, if any.

To date, our drug candidates have been manufactured in small quantities for preclinical studies and early and mid-stage clinical trials. In order to conduct larger scale or late-stage clinical trials for a drug candidate and for commercialization of the resulting drug if that drug candidate is approved for sale, we will need to manufacture it in larger quantities. We may not be able to successfully increase the manufacturing capacity for any of our drug candidates, whether in collaboration with third-party manufacturers or on our own, in a timely or cost-effective manner or at all. If a contract manufacturer makes improvements in the manufacturing process for our drug candidates, we may not own, or may have to share, the intellectual property rights to those improvements. Significant scale-up of manufacturing may require additional validation studies, which are costly and which the FDA must review and approve. In addition, quality issues may arise during those scale-up activities because of the inherent properties of a drug candidate itself or of a drug candidate in combination with other components added during the manufacturing and packaging process, or during shipping and storage of the finished product or active pharmaceutical ingredients. If we are unable to successfully scale-up manufacture of any of our drug candidates in sufficient quality and quantity, the development of that drug candidate and regulatory approval or commercial launch for any resulting drugs may be delayed or there may be a shortage in supply, which could significantly harm our business.

The mechanisms of action of our drug candidates are unproven, and we do not know whether we will be able to develop any drug of commercial value.

We have discovered and are currently developing drug candidates that have what we believe are novel mechanisms of action directed against cytoskeletal targets, and intend to continue to do so. Because no currently approved drugs appear to operate via the same biochemical mechanisms as our compounds, we cannot be certain that our drug candidates will result in commercially viable drugs that safely and effectively treat the indications for which we intend to develop them. The results we have seen for our compounds in preclinical models may not translate into similar results in humans, and results of early clinical trials in humans may not be predictive of the results of larger clinical trials that may later be conducted with our drug candidates. Even if we are successful in developing and receiving regulatory approval for a drug candidate for the treatment of a particular disease, we cannot be certain that we will also be able to develop and receive regulatory approval for that or other drug candidates for the treatment of other diseases. If we or our partners are unable to successfully develop and commercialize our drug candidates, our business will be materially harmed.

Our success depends substantially upon our ability to obtain and maintain intellectual property protection relating to our drug candidates, compounds and research technologies.

We own, or hold exclusive licenses to, a number of U.S. and foreign patents and patent applications directed to our drug candidates, compounds and research technologies. Our success depends on our ability to obtain patent protection both in the United States and in other countries for our drug candidates, their methods of manufacture and use, and our technologies. Our ability to protect our drug candidates, compounds and technologies from unauthorized or infringing use by third parties depends substantially on our ability to obtain and enforce our patents. If our issued patents and patent applications, if granted, do not adequately describe, enable or otherwise provide coverage of our technologies and drug candidates, including omecamtiv mecarbil, tirasemtiv and CK-2127107, we or our licensees would not be able to exclude others from developing or commercializing these drug candidates. Furthermore, the degree of future protection of our proprietary rights is uncertain because legal means may not adequately protect our rights or permit us to gain or keep our competitive advantage.

Due to evolving legal standards relating to the patentability, validity and enforceability of patents covering pharmaceutical inventions and the claim scope of these patents, our ability to enforce our existing patents and to obtain and enforce patents that may issue from any pending or future patent applications is uncertain and involves complex legal, scientific and factual questions. The standards which the U.S. Patent and Trademark Office and its foreign counterparts use to grant patents are not always applied predictably or uniformly and are subject to change. To date, no consistent policy has emerged regarding the breadth of claims allowed in biotechnology and pharmaceutical patents. Thus, we cannot be sure that any patents will issue from any pending or future patent applications owned by or licensed to us. Even if patents do issue, we cannot be sure that the claims of these patents will be held valid or enforceable by a court of law, will provide us with any significant protection against competitive products, or will afford us a commercial advantage over competitive products. In particular:

we or our licensors might not have been the first to make the inventions covered by each of our pending patent applications and issued patents;

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we or our licensors might not have been the first to file patent applications for the inventions covered by our pending patent applications and issued patents;

others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;

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some or all of our or our licensors' pending patent applications may not result in issued patents or the claims that issue may be narrow in scope and not provide us with competitive advantages;

our and our licensors' issued patents may not provide a basis for commercially viable drugs or therapies or may be challenged and invalidated by third parties;

our or our licensors' patent applications or patents may be subject to interference, opposition or similar administrative proceedings that may result in a reduction in their scope or their loss altogether;

we may not develop additional proprietary technologies or drug candidates that are patentable; or

the patents of others may prevent us or our partners from discovering, developing or commercializing our drug candidates. Patent protection is afforded on a country-by-country basis. Some foreign jurisdictions do not protect intellectual property rights to the same extent as in the United States. Many companies have encountered significant difficulties in protecting and defending intellectual property rights in foreign jurisdictions. Some of our development efforts are performed in countries outside of the United States through third party contractors. We may not be able to effectively monitor and assess intellectual property developed by these contractors. We therefore may not be able to effectively protect this intellectual property and could lose potentially valuable intellectual property rights. In addition, the legal protection afforded to inventors and owners of intellectual property in countries outside of the United States may not be as protective of intellectual property rights as in the United States. Therefore, we may be unable to acquire and protect intellectual property developed by these contractors to the same extent as if these development activities were being conducted in the United States. If we encounter difficulties in protecting our intellectual property rights in foreign jurisdictions, our business prospects could be substantially harmed.

We rely on intellectual property assignment agreements with our corporate partners, employees, consultants, scientific advisors and other collaborators to grant us ownership of new intellectual property that is developed. These agreements may not result in the effective assignment to us of that intellectual property. As a result, our ownership of key intellectual property could be compromised.

Changes in either the patent laws or their interpretation in the United States or other countries may diminish the value of our intellectual property or our ability to obtain patents. For example, the America Invents Act of 2011 may affect the scope, strength and enforceability of our patent rights in the United States or the nature of proceedings which may be brought by us related to our patent rights in the United States.

If one or more products resulting from our drug candidates is approved for sale by the FDA and we do not have adequate intellectual property protection for those products, competitors could duplicate them for approval and sale in the United States without repeating the extensive testing required of us or our partners to obtain FDA approval. Regardless of any patent protection, under current law, an application for a generic version of a new chemical entity cannot be approved until at least five years after the FDA has approved the original product. When that period expires, or if that period is altered, the FDA could approve a generic version of our product regardless of our patent protection. An applicant for a generic version of our product may only be required to conduct a relatively inexpensive study to show that its product is bioequivalent to our product, and may not have to repeat the lengthy and expensive clinical trials that we or our partners conducted to demonstrate that the product is safe and effective. In the absence of adequate patent protection for our products in other countries, competitors may similarly be able to obtain regulatory approval in those countries of generic versions of our products.

We also rely on trade secrets to protect our technology, particularly where we believe patent protection is not appropriate or obtainable. However, trade secrets are often difficult to protect, especially outside of the United States. While we endeavor to use reasonable efforts to protect our trade secrets, our or our partners' employees, consultants, contractors or scientific and other advisors may unintentionally or willfully disclose our information to competitors. In addition, confidentiality agreements, if any, executed by those individuals may not be enforceable or provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure. Pursuing a claim that a third party had illegally obtained and was using our trade secrets would be expensive and time-consuming, and the outcome would be unpredictable. Even if we are able to maintain our trade secrets as confidential, if our competitors independently develop information equivalent or similar to our trade secrets, our business could be harmed.

If we are not able to defend the patent or trade secret protection position of our technologies and drug candidates, then we will not be able to exclude competitors from developing or marketing competing drugs, and we may not generate enough revenue from product sales to justify the cost of development of our drugs or to achieve or maintain profitability.

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If we are sued for infringing third party intellectual property rights, it will be costly and time-consuming, and an unfavorable outcome could have a significant adverse effect on our business.

Our ability to commercialize drugs depends on our ability to use, manufacture and sell those drugs without infringing the patents or other proprietary rights of third parties. Numerous U.S. and foreign issued patents and pending patent applications owned by third parties exist in the therapeutic areas in which we are developing drug candidates and seeking new potential drug candidates. In

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addition, because patent applications can take several years to issue, there may be currently pending applications, unknown to us, which could later result in issued patents that our activities with our drug candidates could infringe. There may also be existing patents, unknown to us, that our activities with our drug candidates could infringe.

Other future products of ours may be impacted by patents of companies engaged in competitive programs with significantly greater resources. Further development of these products could be impacted by these patents and result in significant legal fees.

If a third party claims that our actions infringe its patents or other proprietary rights, we could face a number of issues that could seriously harm our competitive position, including, but not limited to:

infringement and other intellectual property claims that, even if meritless, can be costly and time-consuming to litigate, delay the regulatory approval process and divert management's attention from our core business operations;

substantial damages for past infringement which we may have to pay if a court determines that our drugs or technologies infringe a third party's patent or other proprietary rights;

a court prohibiting us from selling or licensing our drugs or technologies unless the holder licenses the patent or other proprietary rights to us, which it is not required to do; and

if a license is available from a holder, we may have to pay substantial royalties or grant cross-licenses to our patents or other proprietary rights.

If any of these events occur, it could significantly harm our business and negatively affect our stock price.

We may undertake infringement or other legal proceedings against third parties, causing us to spend substantial resources on litigation and exposing our own intellectual property portfolio to challenge.

Third parties may infringe our patents. To prevent infringement or unauthorized use, we may need to file infringement suits, which are expensive and time-consuming. In an infringement proceeding, a court may decide that one or more of our patents is invalid, unenforceable, or both. In this case, third parties may be able to use our technology without paying licensing fees or royalties. Even if the validity of our patents is upheld, a court may refuse to stop the other party from using the technology at issue on the ground that the other party's activities are not covered by our patents. Policing unauthorized use of our intellectual property is difficult, and we may not be able to prevent misappropriation of our proprietary rights, particularly in countries where the laws may not protect such rights as fully as in the United States. In addition, third parties may affirmatively challenge our rights to, or the scope or validity of, our patent rights.

We may become involved in disputes with our strategic partners over intellectual property ownership, and publications by our research collaborators and clinical investigators could impair our ability to obtain patent protection or protect our proprietary information, either of which would have a significant impact on our business.

Inventions discovered under our current or future strategic alliance agreements may become jointly owned by our strategic partners and us in some cases, and the exclusive property of one of us in other cases. Under some circumstances, it may be difficult to determine who owns a particular invention or whether it is jointly owned, and disputes could arise regarding ownership or use of those inventions. These disputes could be costly and time-consuming, and an unfavorable outcome could have a significant adverse effect on our business if we were not able to protect or license rights to these inventions. In addition, our research collaborators and clinical investigators generally have contractual rights to publish data arising from their work. Publications by our research collaborators and clinical investigators relating to our research and development programs, either with or without our consent, could benefit our current or potential competitors and may impair our ability to obtain patent protection or protect our proprietary information, which could significantly harm our business.

We may be subject to claims that we or our employees have wrongfully used or disclosed trade secrets of their former employers.

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Many of our employees were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending these claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key research personnel or their work product could hamper or prevent our ability to develop and commercialize certain potential drugs, which could significantly harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and distract management.

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Our competitors may develop drugs that are less expensive, safer or more effective than ours, which may diminish or eliminate the commercial success of any drugs that we may commercialize.

We compete with companies that have developed drugs or are developing drug candidates for cardiovascular diseases, diseases and conditions associated with muscle weakness or wasting and other diseases for which our drug candidates may be useful treatments. For example, if tirasemtiv is approved by the FDA for the treatment of ALS, it may then compete with other potential new therapies for ALS that are currently being developed by companies such as Mitsubishi Tanabe Pharma Corporation, Eisai Inc., Trophos SA, Neuraltus Pharmaceuticals, Inc., Isis Pharmaceuticals, Inc. and GlaxoSmithKline plc. In addition, BrainStorm Cell Therapeutics and Neuralstem, Inc. are each conducting clinical development of stem cell therapies for the potential treatment of ALS. If CK-2127107 is approved by the FDA for the potential treatment of non-neuromuscular indications associated with muscle weakness, potential competitors include Ligand Pharmaceuticals, Inc., which is developing LGD-4033, a selective androgen receptor modulator, for muscle wasting; and GTX, Inc., which is developing ostarine, a selective androgen receptor modulator, for cancer cachexia. Novartis (in collaboration with Morphosys AG), is conducting clinical development with an activin type-IIb receptor antagonist to evaluate its ability to treat diseases involving the loss of muscle mass, strength and function.

If omecamtiv mecarbil is approved for marketing by the FDA for heart failure, it would compete against other drugs used for the treatment of acute and chronic heart failure. These include generic drugs, such as milrinone, dobutamine or digoxin and newer marketed drugs such as nesiritide. Omecamtiv mecarbil could also potentially compete against other novel drug candidates in development, such as bucindolol, which is being developed by ARCA biopharma, Inc.; sererelaxin and LCZ-696, which are being developed by Novartis; cenderitide (CD-NP), which is being developed by Nile Therapeutics, Inc., TRV-027, which is being developed by Trevena; aladorian, which is being developed by Armgo Pharma, Inc; certain cardioprotectants which are being developed by Cardioxyl Pharmaceuticals, Inc.; glial growth factor (GGF-2) which is being developed by Acorda Therapeutics, Inc.; and Neurocardin, which is being developed by Zensun Sci & Tech, Ltd. In addition, there are a number of medical devices being developed for the potential treatment of heart failure.

Our competitors may:

develop drug candidates and market drugs that are less expensive or more effective than our future drugs;

commercialize competing drugs before we or our partners can launch any drugs developed from our drug candidates;

hold or obtain proprietary rights that could prevent us from commercializing our products;

initiate or withstand substantial price competition more successfully than we can;

more successfully recruit skilled scientific workers and management from the limited pool of available talent;

more effectively negotiate third-party licenses and strategic alliances;

take advantage of acquisition or other opportunities more readily than we can;

develop drug candidates and market drugs that increase the levels of safety or efficacy that our drug candidates will need to show in order to obtain regulatory approval; or

introduce therapies or market drugs that render the market opportunity for our potential drugs obsolete.

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We will compete for market share against large pharmaceutical and biotechnology companies and smaller companies that are collaborating with larger pharmaceutical companies, new companies, academic institutions, government agencies and other public and private research organizations. Many of these competitors, either alone or together with their partners, may develop new drug candidates that will compete with ours. Many of these competitors have larger research and development programs or substantially greater financial resources than we do. Our competitors may also have significantly greater experience in:

developing drug candidates;

undertaking preclinical testing and clinical trials;

building relationships with key customers and opinion-leading physicians;

obtaining and maintaining FDA and other regulatory approvals of drug candidates;

formulating and manufacturing drugs; and

launching, marketing and selling drugs.

If our competitors market drugs that are less expensive, safer or more efficacious than our potential drugs, or that reach the market sooner than our potential drugs, we may not achieve commercial success. In addition, the life sciences industry is characterized by rapid technological change. If we fail to stay at the forefront of technological change, we may be unable to compete effectively. Our competitors may render our technologies obsolete by improving existing technological approaches or developing new or different approaches, potentially eliminating the advantages in our drug discovery process that we believe we derive from our research approach and proprietary technologies.

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Our failure to attract and retain skilled personnel could impair our drug development and commercialization activities.

Our business depends on the performance of our senior management and key scientific and technical personnel. The loss of the services of any member of our senior management or key scientific or technical staff may significantly delay or prevent the achievement of drug development and other business objectives by diverting management's attention to transition matters and identifying suitable replacements. We also rely on consultants and advisors to assist us in formulating our research and development strategy. All of our consultants and advisors are either self-employed or employed by other organizations, and they may have conflicts of interest or other commitments, such as consulting or advisory contracts with other organizations, that may affect their ability to contribute to us. In addition, if and as our business grows, we will need to recruit additional executive management and scientific and technical personnel. There is intense competition for skilled executives and employees with relevant scientific and technical expertise, and this competition is likely to continue. Our inability to attract and retain sufficient scientific, technical and managerial personnel could limit or delay our product development activities, which would adversely affect the development of our drug candidates and commercialization of our potential drugs and growth of our business.

Our workforce reductions in October 2011 and any future workforce and expense reductions may have an adverse impact on our internal programs and our ability to hire and retain skilled personnel.

In October 2011, we reduced our workforce by approximately 18% in order to reduce expenses and to focus resources primarily on our later-stage development programs for tirasemtiv and omecamtiv mecarbil and certain other research and development programs also directed to muscle biology. These headcount reductions and the cost control measures we have implemented may negatively affect our productivity and limit our research and development activities. Our future success will depend in large part upon our ability to attract and retain highly skilled personnel. We may have difficulty retaining and attracting such personnel as a result of a perceived risk of future workforce reductions. In light of our continued need for funding and cost control, we may be required to implement future workforce and expense reductions, which could further limit our research and development activities. In addition, the implementation of any additional workforce or expense reduction programs may divert the efforts of our management team and other key employees, which could adversely affect our business.

We may expand our development and clinical research capabilities and, as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

We may have growth in our expenditures, the number of our employees and the scope of our operations, in particular with respect to those drug candidates that we elect to develop or commercialize independently or together with a partner. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited resources, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The physical expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

We currently have no sales or marketing capabilities and, if we are unable to enter into or maintain strategic alliances with marketing partners or to develop our own sales and marketing capabilities, we may not be successful in commercializing our potential drugs.

We currently have no sales, marketing or distribution capabilities. We plan to commercialize drugs that can be effectively marketed and sold in concentrated markets that do not require a large sales force to be competitive. To achieve this goal, we will need to establish our own specialized sales force and marketing organization with technical expertise and supporting distribution capabilities. Developing such an organization is expensive and time-consuming and could delay a product launch. In addition, we may not be able to develop this capacity efficiently, cost-effectively or at all, which could make us unable to commercialize our drugs. If we determine not to market our drugs on our own, we will depend on strategic alliances with third parties, such as Amgen and Astellas, which have established distribution systems and direct sales forces to commercialize them. If we are unable to enter into such arrangements on acceptable terms, we may not be able to successfully commercialize these drugs. To the extent that we are not successful in commercializing any drugs ourselves or through a strategic alliance, our product revenues and business will suffer and our stock price would decrease.

Risks Related To Our Industry

The regulatory approval process is expensive, time-consuming and uncertain and may prevent our partners or us from obtaining approvals to commercialize some or all of our drug candidates.

The research, testing, manufacturing, selling and marketing of drugs are subject to extensive regulation by the FDA and other regulatory authorities in the United States and other countries, and regulations differ from country to country. Neither we nor our partners are permitted to

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market our potential drugs in the United States until we receive approval of a new drug application (NDA) from the FDA. Neither we nor our partners have received NDA or other marketing approval for any of Cytokinetics' drug candidates.

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Obtaining NDA approval is a lengthy, expensive and uncertain process. In addition, failure to comply with FDA and other applicable foreign and U.S. regulatory requirements may subject us to administrative or judicially imposed sanctions. These include warning letters, civil and criminal penalties, injunctions, product seizure or detention, product recalls, total or partial suspension of production, and refusal to approve pending NDAs or supplements to approved NDAs.

Regulatory approval of an NDA or NDA supplement is never guaranteed, and the approval process typically takes several years and is extremely expensive. The FDA and foreign regulatory agencies also have substantial discretion in the drug approval process, and the guidance and advice issued by such agencies is subject to change at any time. Despite the time and efforts exerted, failure can occur at any stage, and we may encounter problems that cause us to abandon clinical trials or to repeat or perform additional preclinical testing and clinical trials. The number and focus of preclinical studies and clinical trials that will be required for approval by the FDA and foreign regulatory agencies varies depending on the drug candidate, the disease or condition that the drug candidate is designed to address, and the regulations applicable to any particular drug candidate. In addition, the FDA may require that a proposed Risk Evaluation and Mitigation Strategy, also known as a REMS, be submitted as part of an NDA if the FDA determines that it is necessary to ensure that the benefits of the drug outweigh its risks. The FDA and foreign regulatory agencies can delay, limit or deny approval of a drug candidate for many reasons, including, but not limited to:

they might determine that a drug candidate is not safe or effective;

they might not find the data from preclinical testing and clinical trials sufficient and could request that additional trials be performed;

they might not approve our, our partner s or the contract manufacturer s processes or facilities; or

they might change their approval policies or adopt new regulations.

Even if we receive regulatory approval to manufacture and sell a drug in a particular regulatory jurisdiction, other jurisdictions regulatory authorities may not approve that drug for manufacture and sale. If we or our partners fail to receive and maintain regulatory approval for the sale of any drugs resulting from our drug candidates, it would significantly harm our business and negatively affect our stock price.

If we or our partners receive regulatory approval for our drug candidates, we or they will be subject to ongoing obligations to and continued regulatory review by the FDA and foreign regulatory agencies, and may be subject to additional post-marketing obligations, all of which may result in significant expense and limit commercialization of our potential drugs.

Any regulatory approvals that we or our partners receive for our drug candidates may be subject to limitations on the indicated uses for which the drug may be marketed or require potentially costly post-marketing follow-up studies or compliance with a REMS. In addition, if the FDA or foreign regulatory agencies approves any of our drug candidates, the labeling, packaging, adverse event reporting, storage, advertising, promotion and record-keeping for the drug will be subject to extensive regulatory requirements. The subsequent discovery of previously unknown problems with the drug, including adverse events of unanticipated severity or frequency, or the discovery that adverse effects or toxicities observed in preclinical research or clinical trials that were believed to be minor actually constitute much more serious problems, may result in restrictions on the marketing of the drug or withdrawal of the drug from the market.

The FDA and foreign regulatory agencies may change their policies and additional government regulations may be enacted that could prevent or delay regulatory approval of our drug candidates. We cannot predict the likelihood, nature or extent of adverse government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are not able to maintain regulatory compliance, we might not be permitted to market our drugs and our business would suffer.

If physicians and patients do not accept our drugs, we may be unable to generate significant revenue, if any.

Even if our drug candidates obtain regulatory approval, the resulting drugs, if any, may not gain market acceptance among physicians, healthcare payors, patients and the medical community. Even if the clinical safety and efficacy of drugs developed from our drug candidates are established for purposes of approval, physicians may elect not to recommend these drugs for a variety of reasons including, but not limited to:

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introduction of competitive drugs to the market;

clinical safety and efficacy of alternative drugs or treatments;

cost-effectiveness;

availability of coverage and reimbursement from health maintenance organizations and other third-party payors;

convenience and ease of administration;

prevalence and severity of adverse side effects;

other potential disadvantages relative to alternative treatment methods; or

insufficient marketing and distribution support.

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If our drugs fail to achieve market acceptance, we may not be able to generate significant revenue and our business would suffer.

The coverage and reimbursement status of newly approved drugs is uncertain and failure to obtain adequate coverage and reimbursement could limit our ability to market any drugs we may develop and decrease our ability to generate revenue.

Even if one or more of our drug candidates is approved for sale, the commercial success of our drugs in both domestic and international markets will be substantially dependent on whether third-party coverage and reimbursement is available for our drugs by the medical profession for use by their patients, which is highly uncertain. Medicare, Medicaid, health maintenance organizations and other third-party payors are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement of new drugs. As a result, they may not cover or provide adequate payment for our drugs. They may not view our drugs as cost-effective and reimbursement may not be available to consumers or may be insufficient to allow our drugs to be marketed on a competitive basis. If we are unable to obtain adequate coverage and reimbursement for our drugs, our ability to generate revenue will be adversely affected. Likewise, current and future legislative or regulatory efforts to control or reduce healthcare costs or reform government healthcare programs, such as the Patient Protection Affordable Care Act and the Health Care and Education Reconciliation Act of 2010, could result in lower prices or rejection of coverage and reimbursement for our potential drugs. Changes in coverage and reimbursement policies or healthcare cost containment initiatives that limit or restrict reimbursement for any of our drug candidates that are approved could cause our potential future revenues to decline.

We may be subject to costly product liability or other liability claims and may not be able to obtain adequate insurance.

The use of our drug candidates in clinical trials may result in adverse effects. We cannot predict all the possible harms or adverse effects that may result from our clinical trials. We currently maintain limited product liability insurance. We may not have sufficient resources to pay for any liabilities resulting from a personal injury or other claim excluded from, or beyond the limit of, our insurance coverage. Our insurance does not cover third parties' negligence or malpractice, and our clinical investigators and sites may have inadequate insurance or none at all. In addition, in order to conduct clinical trials or otherwise carry out our business, we may have to contractually assume liabilities for which we may not be insured. If we are unable to look to our own or a third party's insurance to pay claims against us, we may have to pay any arising costs and damages ourselves, which may be substantial.

In addition, if we commercially launch drugs based on our drug candidates, we will face even greater exposure to product liability claims. This risk exists even with respect to those drugs that are approved for commercial sale by the FDA and foreign regulatory agencies and manufactured in licensed and regulated facilities. We intend to secure additional limited product liability insurance coverage for drugs that we commercialize, but may not be able to obtain such insurance on acceptable terms with adequate coverage, or at reasonable costs. Even if we are ultimately successful in product liability litigation, the litigation would consume substantial amounts of our financial and managerial resources and may create adverse publicity, all of which would impair our ability to generate sales of the affected product and our other potential drugs. Moreover, product recalls may be issued at our discretion or at the direction of the FDA and foreign regulatory agencies, other governmental agencies or other companies having regulatory control for drug sales. Product recalls are generally expensive and often have an adverse effect on the reputation of the drugs being recalled and of the drug's developer or manufacturer.

We may be required to indemnify third parties against damages and other liabilities arising out of our development, commercialization and other business activities, which could be costly and time-consuming and distract management. If third parties that have agreed to indemnify us against damages and other liabilities arising from their activities do not fulfill their obligations, then we may be held responsible for those damages and other liabilities.

Our employees or contractors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, anti-bribery laws and insider trading.

We are exposed to the risk of fraud or other misconduct by our employees or contractors. Such misconduct could include failures to comply with the regulations of the FDA and non-U.S. regulators, provide accurate information to the FDA and non-U.S. regulators, comply with anti-bribery laws (such as the Foreign Corrupt Practice Act) or healthcare fraud and abuse laws and regulations in the United States and abroad, report financial information or data accurately or disclose unauthorized activities to us. In particular, business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, marketing and promotion, sales commission, incentive programs and other business arrangements and practices. Such misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and cause serious harm to our reputation. We have adopted a code of conduct, but it is not always possible to identify and deter misconduct, and the precautions we take to detect and prevent these activities may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant fines or

other sanctions.

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Responding to any claims relating to improper handling, storage or disposal of the hazardous chemicals and radioactive and biological materials we use in our business could be time-consuming and costly.

Our research and development processes involve the controlled use of hazardous materials, including chemicals and radioactive and biological materials. Our operations produce hazardous waste products. We cannot eliminate the risk of accidental contamination or discharge and any resultant injury from those materials. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of hazardous materials. We may be sued for any injury or contamination that results from our or third parties' use of these materials. Compliance with environmental laws and regulations is expensive, and current or future environmental regulations may impair our research, development and production activities.

Our facilities in California are located near an earthquake fault, and an earthquake or other types of natural disasters, catastrophic events or resource shortages could disrupt our operations and adversely affect our results.

All of our facilities and our important documents and records, such as hard copies of our laboratory books and records for our drug candidates and compounds and our electronic business records, are located in our corporate headquarters at a single location in South San Francisco, California near active earthquake zones. If a natural disaster, such as an earthquake or flood, a catastrophic event such as a disease pandemic or terrorist attack, or a localized extended outage of critical utilities or transportation systems occurs, we could experience a significant business interruption. Our partners and other third parties on which we rely may also be subject to business interruptions from such events. In addition, California from time to time has experienced shortages of water, electric power and natural gas. Future shortages and conservation measures could disrupt our operations and cause expense, thus adversely affecting our business and financial results.

Risks Related To an Investment in Our Securities

We expect that our stock price will fluctuate significantly, and you may not be able to resell your shares at or at or above your investment price.

The stock market, particularly in recent years, has experienced significant volatility, particularly with respect to pharmaceutical, biotechnology and other life sciences company stocks, which often does not relate to the operating performance of the companies represented by the stock. Factors that could cause volatility in the market price of our common stock include, but are not limited to:

announcements concerning any of the clinical trials for our compounds, such as tirasemtiv for the potential treatment of ALS, CK-2127107 for the potential treatment of non-neuromuscular indications associated with muscle weakness and omecamtiv mecarbil for the potential treatment of heart failure (including, but not limited to, the timing of initiation or completion of such trials and the results of such trials, and delays or discontinuations of such trials, including delays resulting from slower than expected or suspended patient enrollment or discontinuations resulting from a failure to meet pre-defined clinical end points);

announcements concerning our strategic alliance with Amgen or Astellas or future strategic alliances;

failure or delays in entering additional drug candidates into clinical trials;

failure or discontinuation of any of our research programs;

issuance of new or changed securities analysts' reports or recommendations;

failure or delay in establishing new strategic alliances, or the terms of those alliances;

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market conditions in the pharmaceutical, biotechnology and other healthcare-related sectors;

actual or anticipated fluctuations in our quarterly financial and operating results;

developments or disputes concerning our intellectual property or other proprietary rights;

introduction of technological innovations or new products by us or our competitors;

issues in manufacturing our drug candidates or drugs;

market acceptance of our drugs;

third-party healthcare coverage and reimbursement policies;

FDA or other U.S. or foreign regulatory actions affecting us or our industry;

litigation or public concern about the safety of our drug candidates or drugs;

additions or departures of key personnel;

substantial sales of our common stock by our existing stockholders, whether or not related to our performance;

automated trading activity by algorithmic and high-frequency trading programs; and

volatility in the stock prices of other companies in our industry or in the stock market generally.

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These and other external factors may cause the market price and demand for our common stock to fluctuate substantially, which may limit or prevent investors from readily selling their shares of common stock and may otherwise negatively affect the liquidity of our common stock. In addition, when the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the company that issued the stock. If any of our stockholders brought a lawsuit against us, we could incur substantial costs defending the lawsuit. Such a lawsuit could also divert our management's time and attention.

If the ownership of our common stock continues to be highly concentrated, it may prevent you and other stockholders from influencing significant corporate decisions and may result in conflicts of interest that could cause our stock price to decline.

As of July 26, 2013, our executive officers, directors and their affiliates beneficially owned or controlled approximately 5.3% of the outstanding shares of our common stock (after giving effect to the exercise of all outstanding vested and unvested options, restricted stock units and warrants). Accordingly, these executive officers, directors and their affiliates, acting as a group, will have substantial influence over the outcome of corporate actions requiring stockholder approval, including the election of directors, any merger, consolidation or sale of all or substantially all of our assets or any other significant corporate transactions. These stockholders may also delay or prevent a change of control of us, even if such a change of control would benefit our other stockholders. The significant concentration of stock ownership may adversely affect the trading price of our common stock due to investors' perception that conflicts of interest may exist or arise.

Volatility in the stock prices of other companies may contribute to volatility in our stock price.

The stock market in general, and the NASDAQ stock exchanges and the market for technology companies in particular, have experienced significant price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Further, there has been particular volatility in the market prices of securities of early stage and development stage life sciences companies. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been instituted. A securities class action suit against us could result in substantial costs, potential liabilities and the diversion of management's attention and resources, and could harm our reputation and business.

Our common stock is thinly traded and there may not be an active, liquid trading market for our common stock.

There is no guarantee that an active trading market for our common stock will be maintained on NASDAQ, or that the volume of trading will be sufficient to allow for timely trades. Investors may not be able to sell their shares quickly or at the latest market price if trading in our stock is not active or if trading volume is limited. In addition, if trading volume in our common stock is limited, trades of relatively small numbers of shares may have a disproportionate effect on the market price of our common stock.

Our stockholders will experience substantial additional dilution if outstanding options or warrants are exercised for common stock.

As of July 26, 2013, there were 7,692,096 shares of common stock issuable upon the exercise of warrants, having a weighted average exercise price of \$5.95 per share, and 2,493,753 shares of common stock issuable upon the exercise of stock options outstanding, having a weighted average exercise price of \$15.16 per share. The exercise of outstanding options or warrants for common stock would be substantially dilutive to the outstanding shares of common stock. Any dilution or potential dilution may cause our stockholders to sell their shares, which would contribute to a downward movement in the stock price of our common stock.

If we raise additional capital by issuing securities in the future, it will cause dilution to existing stockholders and may cause our share price to decline.

We may raise additional funds through the issuance and sale of additional shares of our common stock or other securities convertible into or exchangeable for our common stock. For example, in June 2011, we entered into an At-the-Market Issuance Sales Agreement (the "ATM Agreement") with McNicoll, Lewis & Vlasko LLC ("MLV"), pursuant to which we may issue and sell shares of our common stock having an aggregate offering price up to \$20.0 million or 2,397,278 shares, whichever occurs first, from time to time, through MLV as our sales agent. It is anticipated that these additional shares may be sold through MLV over a period of up to 36 months from June 2011. The number of shares ultimately offered for sale by MLV is dependent upon the number of shares that we elect to sell through MLV under the ATM Agreement, subject to the terms and conditions of the ATM Agreement. Depending upon market liquidity at the time, sales of shares of our common stock through MLV under the ATM Agreement may cause the trading price of our common stock to decline.

To the extent that we raise additional capital by issuing equity securities under the ATM Agreement or otherwise, our stockholders will experience additional dilution, and any such issuances may result in downward pressure on the price of our common stock.

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Ownership changes may limit our ability to use our net operating losses and tax credits in the future.

In general, under Section 382 of the Internal Revenue Code (Section 382), a corporation that undergoes an ownership change is subject to limitations on its ability to utilize its pre-change net operating losses and tax credits to offset future taxable income. We have performed a Section 382 analysis and do not believe that we have experienced an ownership change since 2006. A portion of our existing net operating losses and tax credits are subject to limitations arising from previous ownership changes. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 and result in additional limitations. We intend to continue to monitor public filings made by third parties with the SEC to assess whether an ownership change under Section 382 has occurred. Our ability to accurately assess any such ownership change is limited by the timeliness and accuracy of these public filings.

Evolving regulation of corporate governance and public disclosure may result in additional expenses, use of resources and continuing uncertainty.

Changing laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and new SEC regulations and NASDAQ Stock Market LLC rules create uncertainty for public companies. We regularly evaluate and monitor developments with respect to new and proposed laws, regulations and standards. We cannot accurately predict or estimate the amount of the additional costs we may incur in connection with complying with such laws, regulations and standards or the timing of these costs. For example, compliance with the internal control requirements of Section 404 of the Sarbanes-Oxley Act has to date required us to commit significant resources to document and test the adequacy of our internal control over financial reporting. We can provide no assurance as to conclusions of management or by our independent registered public accounting firm with respect to the effectiveness of our internal control over financial reporting in the future. In addition, the SEC has adopted regulations that require us to file corporate financial statement information in an interactive data format known as XBRL. We may incur significant costs and need to invest considerable resources to remain in compliance with these regulations.

These new or changed laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to maintain high standards of corporate governance and public disclosure. As a result, we intend to invest the resources necessary to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new or changed laws, regulations and standards differ from the activities intended by regulatory or governing bodies, due to ambiguities related to practice or otherwise, regulatory authorities may initiate legal proceedings against us, which could be costly and time-consuming, and our reputation and business may be harmed.

We have never paid dividends on our capital stock, and we do not anticipate paying any cash dividends in the foreseeable future.

We have paid no cash dividends on any of our classes of capital stock to date and we currently intend to retain our future earnings, if any, to fund the development and growth of our businesses. In addition, the terms of existing or any future debts may preclude us from paying these dividends.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

On June 14, 2013, we sold 1,404,100 shares of our common stock at a price per share of \$7.12 and an aggregate purchase price of \$10.0 million to Amgen, pursuant to a common stock purchase agreement between us and Amgen.

We relied on the exemption from registration contained in Section 4(2) of the Securities Act, and Regulation D, Rule 506 thereunder, in connection with the issuance and sale of the common stock to Amgen.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

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ITEM 4. MINE SAFETY DISCLOSURES
None.

ITEM 5. OTHER INFORMATION
None.

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ITEM 6. EXHIBITS

Exhibit	
Number	Exhibit Description
3.1	Amended and Restated Certificate of Incorporation.(1)
3.2	Certificate of Amendment of Amended and Restated Certificate of Incorporation.(2)
3.3	Amended and Restated Bylaws.(3)
3.4	Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock.(4)
3.5	Certificate of Designation of Preferences, Rights and Limitations of Series B Convertible Preferred Stock.(5)
3.6	Certificate of Amendment of Amended and Restated Certificate of Incorporation (10)
4.1	Specimen Common Stock Certificate.(6)
4.3	Form of Warrant to Purchase Common Stock of Cytokinetics, Inc.(4)
4.4	Form of Common Stock Warrant Agreement(7)
4.5	Form of Preferred Stock Warrant Agreement(7)
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10.2	2004 Equity Incentive Plan, as amended
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10.48	Common Stock Purchase Agreement dated June 11, 2013 by and between the Company and Amgen, Inc. (9)
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certifications of the Chief Executive Officer and the Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350).
101.INS **	XBRL Instance Document.
101.SCH **	XBRL Taxonomy Extension Schema Document.
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document.
101.LAB**	XBRL Taxonomy Extension Label Linkbase Document
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document.

- (1) Incorporated by reference from our registration statement on Form S-3, registration number 333-174869, filed with the Securities and Exchange Commission on June 13, 2011.
- (2) Incorporated by reference from our Quarterly Report on Form 10-Q, filed with the Securities and Exchange Commission on August 4, 2011.
- (3) Incorporated by reference from our registration statement on Form S-1, registration number 333-112261, declared effective by the Securities and Exchange Commission on April 29, 2004.
- (4) Incorporated by reference from our Current Report on Form 8-K, filed with the Securities and Exchange Commission on April 18, 2011.
- (5) Incorporated by reference from our Current Report on Form 8-K, filed with the Securities and Exchange Commission on June 20, 2012.
- (6) Incorporated by reference from our Quarterly Report on Form 10-Q, filed with the Security and Exchange Commission on May 9, 2007.

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- (7) Incorporated by reference from our registration statement on Form S-3, registration number 333-178189, filed with the Securities and Exchange Commission on November 25, 2011.
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- * Pursuant to a request for confidential treatment, portions of this Exhibit have been redacted from the publicly filed document and have been furnished separately to the Securities and Exchange Commission as required by Rule 406 under the Securities Act or Rule 24b-2 under the Securities Exchange Act, as applicable.
- ** Furnished herewith. In accordance with Rule 406T of Regulation S-T, the information in these exhibits shall not be deemed to be filed for purposes of Section 18 of the Exchange Act, or otherwise subject to liability under that section, and shall not be incorporated by reference into any registration statement or other document filed under the Securities Act of 1933, as amended, except as expressly set forth by specific reference in such filing.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: August 7, 2013

CYTOKINETICS, INCORPORATED
(Registrant)

/s/ Robert I. Blum
Robert I. Blum
President and Chief Executive Officer
(Principal Executive Officer)

/s/ Sharon A. Barbari
Sharon A. Barbari
Executive Vice President, Finance and

Chief Financial Officer
(Principal Financial Officer)

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