CYTOKINETICS

CYTOKINETICS ANNUAL STOCKHOLDER MEETING

MAY 22, 2013

Forward-Looking Statements

Statements in and/or made by our representatives in connection with this presentation regarding future events or our future performance are forward-looking statements. We intend that such statements be protected by the Private Securities Litigation Reform Act of 1995's safe harbor. Our actual results and the timing of events may differ materially from those projected in these statements. Examples of such statements include, but are not limited to, statements relating to: our research and development programs, including plans for and the initiation, design, conduct and results of our and Amgen's clinical trials of our drug candidates, the significance of such results and anticipated timing of the availability of clinical trial data; the commercial potential for our drug candidates and market potential for our targeted indications; our financial guidance and R&D milestones; our receipt of funds and anticipated role in development and commercialization activities under our agreement with Amgen; the properties and potential benefits of our compounds, including their potential indications; and the utility of our focus on muscle function and contractility.

These forward-looking statements involve many risks and uncertainties that could cause actual results and the timing of events to differ materially from those projected by these statements. These risks and uncertainties include a variety of factors, many of which are beyond our control. These statements speak as of today, and you should not rely on them as representing our views in the future. We undertake no obligation to update these statements after this presentation. Please refer to our SEC filings, including our annual reports filed on Form 10-K, our periodic reports filed on Form 10-Q and our current reports filed on Form 8-K, for a more detailed description of these risks and uncertainties. Copies of these documents may be obtained from the SEC or by visiting the Investor Relations section of our website.

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Defined by Science

Powered by Innovation

Inspired by Patients

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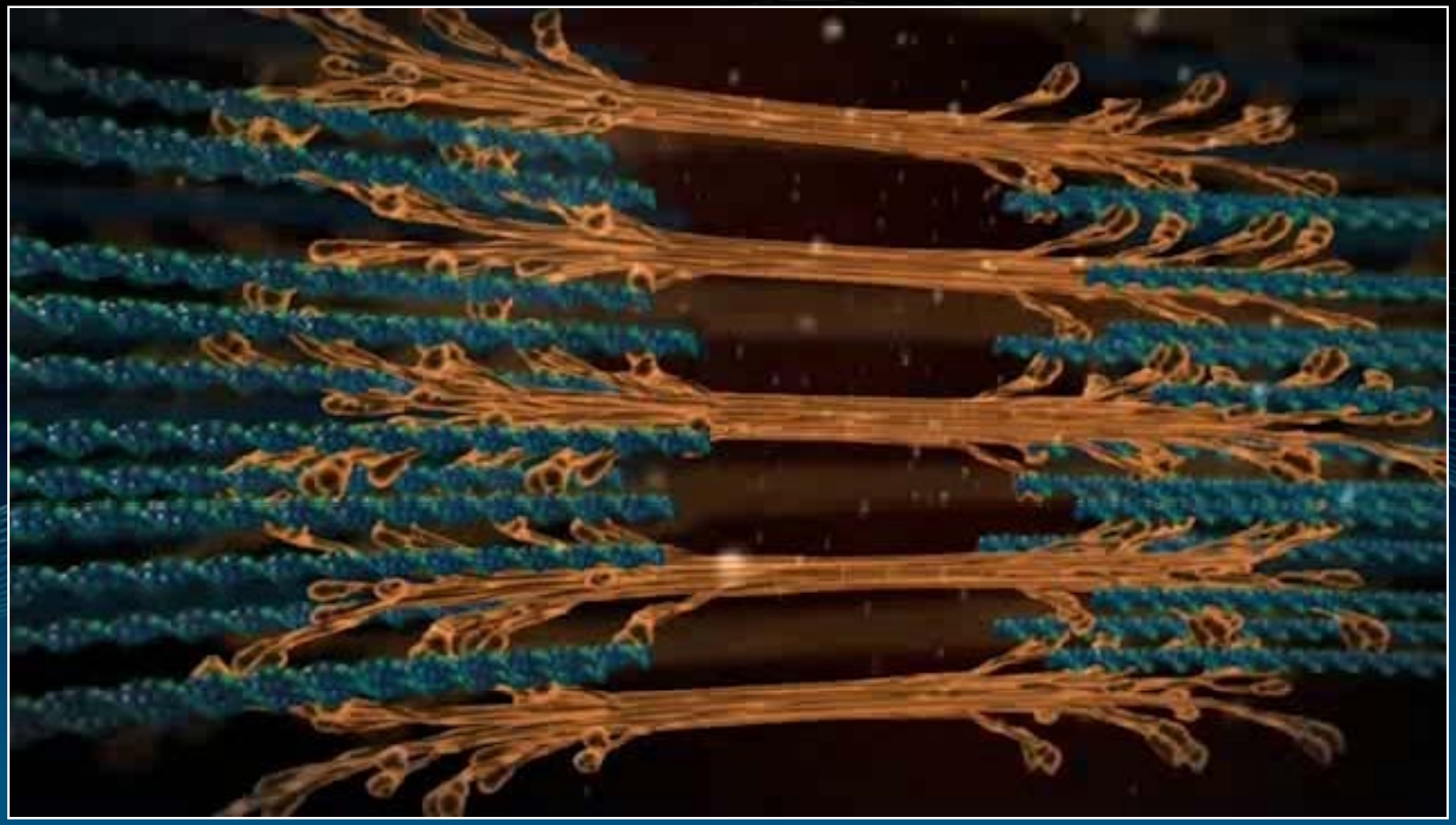
Sarcomere: The Fundamental Unit of Muscle Contractility



Link to video: http://www.cytokinetics.com/video

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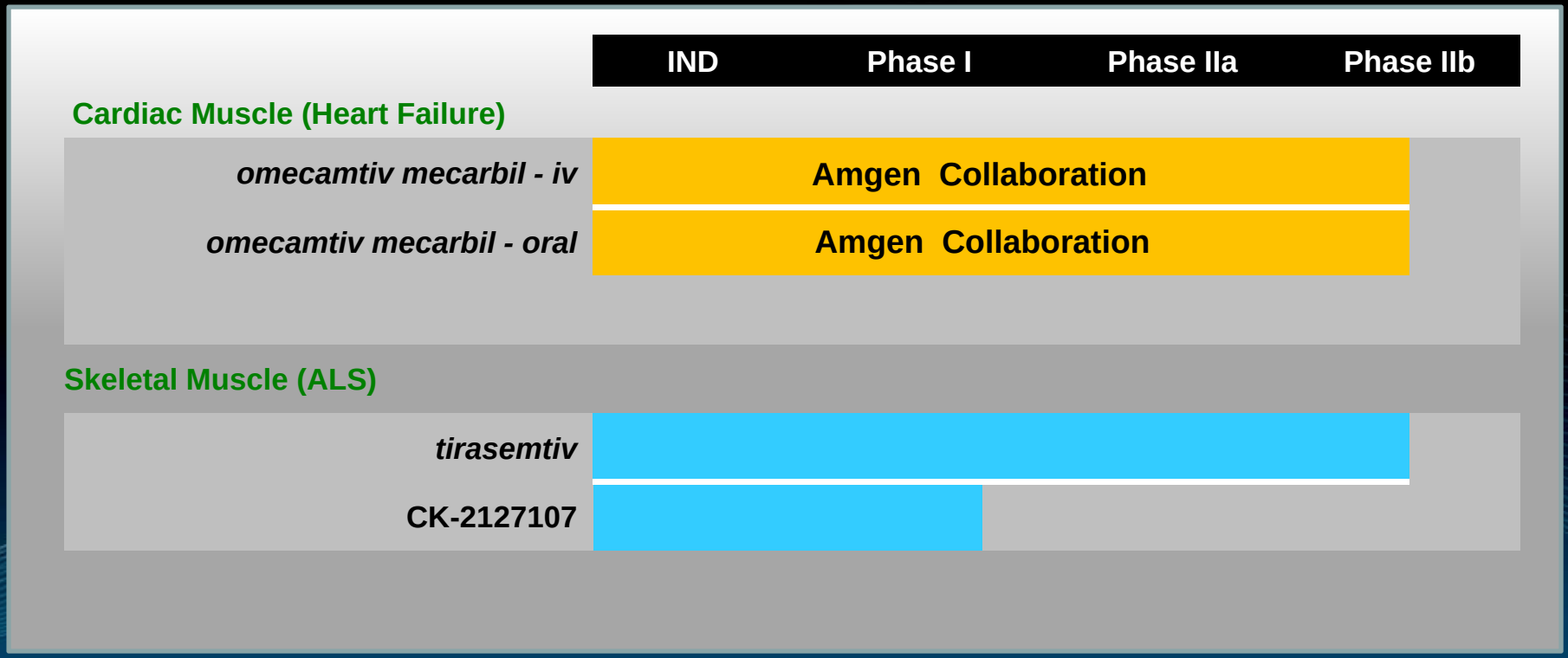
Pharmaceutical Development Pipeline: 2013



Two First-in-class Programs in Late-state Development That Leverage Extensive Phase I And Phase IIa Results

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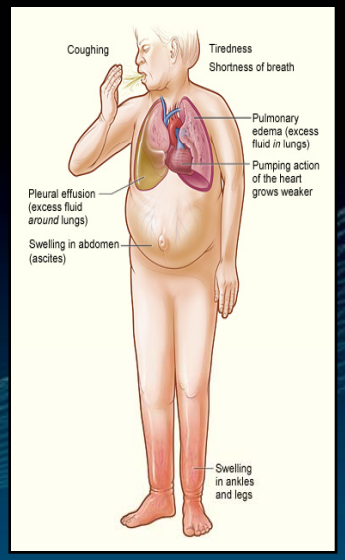
HEART FAILURE PROGRAM

OMECAMTIV MECARBIL

Heart Failure Program: Value Proposition

Heart Failure is a Complex Clinical Syndrome

A physiological state in which cardiac output is insufficient to meet the needs of the body and lungs



- **Symptoms:**
  Shortness of breath, leg swelling and exercise intolerance
- **Types:**
  Systolic, diastolic or biventricular
- **Causes:**
  Myocardial Infarction and other forms of ischemic heart disease, hypertension, valvular heart disease and cardiomyopathy
- **Treatment (Acute):**
  Vasodilators and diuretics
- **Treatment (Chronic):**
  ACE inhibitors, oral loop diuretics, beta-blockers or angiotensin receptor blockers, vasodilators, and lifestyle modification

Chronic Condition With Urgent Unmet Need

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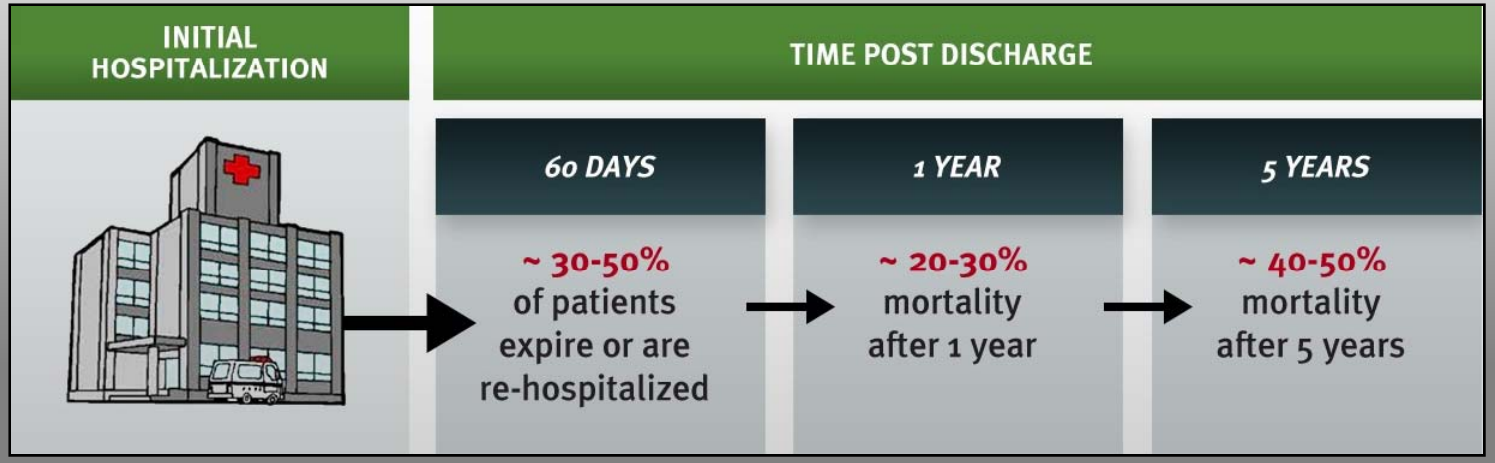
Heart Failure Program: Value Proposition

High Mortality and Hospital Readmission Rates



- Acute heart failure is the most frequent cause of hospitalization in people > 65
- > 1 million hospitalizations with primary diagnosis of heart failure annually in US

Significant Unmet Need Exists To Address Mortality And Hospital Readmission

Adams et al. Am Heart J 2006; 149:209-16
Dickstein et al. Eur Heart J 2008;29:2388-442
Chen et al. JAMA 2011;306:1669-78
Loehr et al. Am J Cardiol 2008;101:1016-22
Roer et al. Circulation 2012;125:32-220

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Heart Failure Program: Historical Development

Omecamtiv Mecarbil: Phase I & IIa Clinical Trials

STUDY #	N	FORM	TRIAL OBJECTIVES	RESULTS	STATUS
Phase I					
Healthy Volunteers* (CY 1111)	34	IV	Safety and Tolerability MTD / Plasma Concentration	Linear, Dose Proportional PK; Statistically Significant Effects on Echo Parameters	Announced 2006
Healthy Volunteers (CY 1011)	10	IV+ Oral	Oral Bioavailability	100% Bioavailability No first-pass hepatic metabolism	Announced 2006
Healthy Volunteers (CY 1016)	12	Oral	Modified Release Pharmacokinetics	Prototype selected	Announced June 2008
Healthy Volunteers (CY 1015)	32	Oral	Single dose to multi-dose Pharmacokinetics	Dose-proportionality No gender differences	Announced June 2008
Healthy Volunteers (CY 1013)	24	Oral	Drug/Drug Interaction	Absence of metabolism by CYPs 3A4 and 2D6 had minimal effect on PK	Announced Dec 2008
Healthy Volunteers (20090727)	65	Oral	Effect of food on bioavailability Safety, tolerability, PK	Selected multiple formulations that warrant further evaluation in patients with heart failure	Announced Q2 2012
Phase II					
Stable Heart Failure** (CY 1121)	45	IV	Safety and tolerability, PK/PD dose-response	Well-tolerated; Statistically Significant and Clinically Relevant on Echo Parameters	Announced March 2009
Ischemic Cardiomyopathy (CY1221)	10	IV to Oral	Safety	Well-tolerated; Supports Phase IIb	Announced June 2009

Intravenous administration Oral administration

Well Characterized Safety, Tolerability, PK/PD
In Healthy Volunteers And Heart Failure Patients

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Heart Failure Program: Amgen Collaboration

Amgen paid $75 mm for option exercisable on Phase IIa clinical trials program (December 2006)

Amgen paid $50 mm to exercise option gaining exclusive worldwide rights (excluding Japan) (May 2009)

- Amgen responsible for development and commercialization subject to CK participation rights
- Cytokinetics can earn up to $600 mm in milestone payments

Commercialization	▪ Cytokinetics to receive escalating double-digit royalties ▪ Increased royalties through co-funding Phase III trials ▪ Option to co-promote co-funded products in NA ▪ Cytokinetics reimbursed for certain sales force costs

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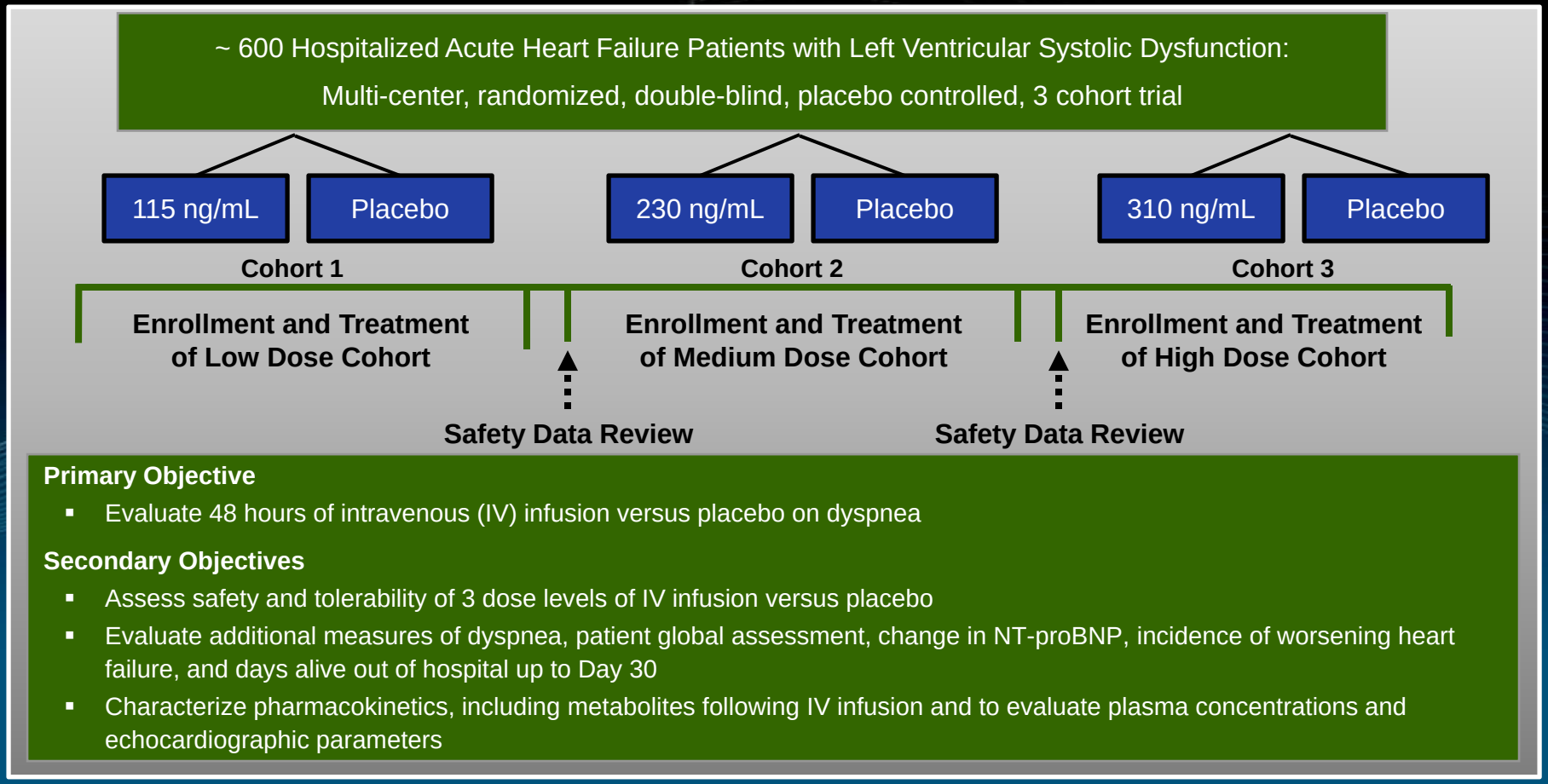
Heart Failure Program: Current Clinical Trials

Results in Mid 2013

ATOMIC-AHF Phase IIb Clinical Trial

Acute Treatment with *Omecamtiv Mecarbil* to Increase Contractility in Acute Heart Failure



Primary Objective

- Evaluate 48 hours of intravenous (IV) infusion versus placebo on dyspnea

Secondary Objectives

- Assess safety and tolerability of 3 dose levels of IV infusion versus placebo
- Evaluate additional measures of dyspnea, patient global assessment, change in NT-proBNP, incidence of worsening heart failure, and days alive out of hospital up to Day 30
- Characterize pharmacokinetics, including metabolites following IV infusion and to evaluate plasma concentrations and echocardiographic parameters

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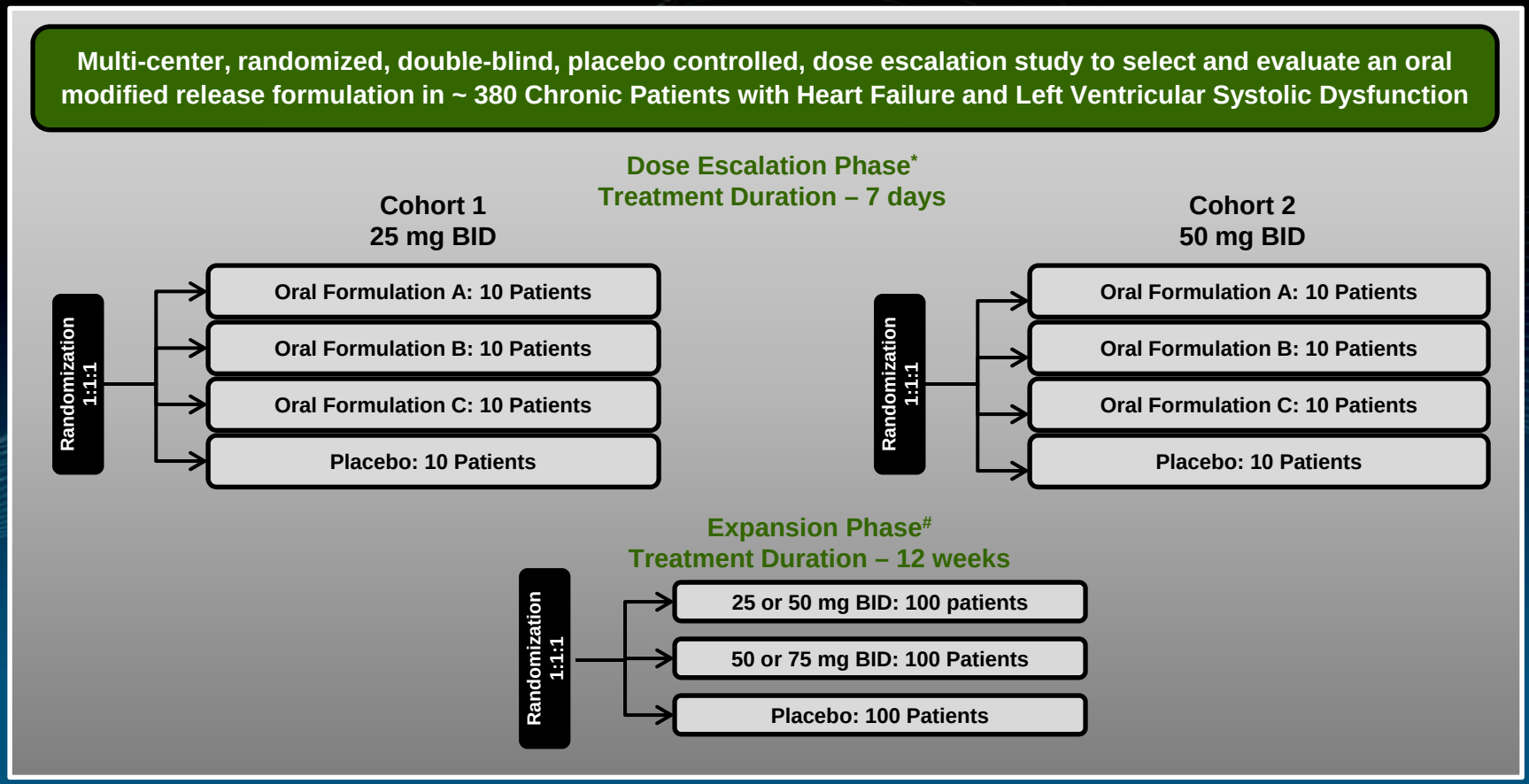
Heart Failure Program: Current Clinical Trials

COSMIC-HF Phase II Clinical Trial

Chronic Oral Study of Myosin Activation to Increase Contractility in Heart Failure



*Cohort 3 is optional depending on PK parameters achieved in cohorts 1-2
#Expansion phase follows completion of escalation phase

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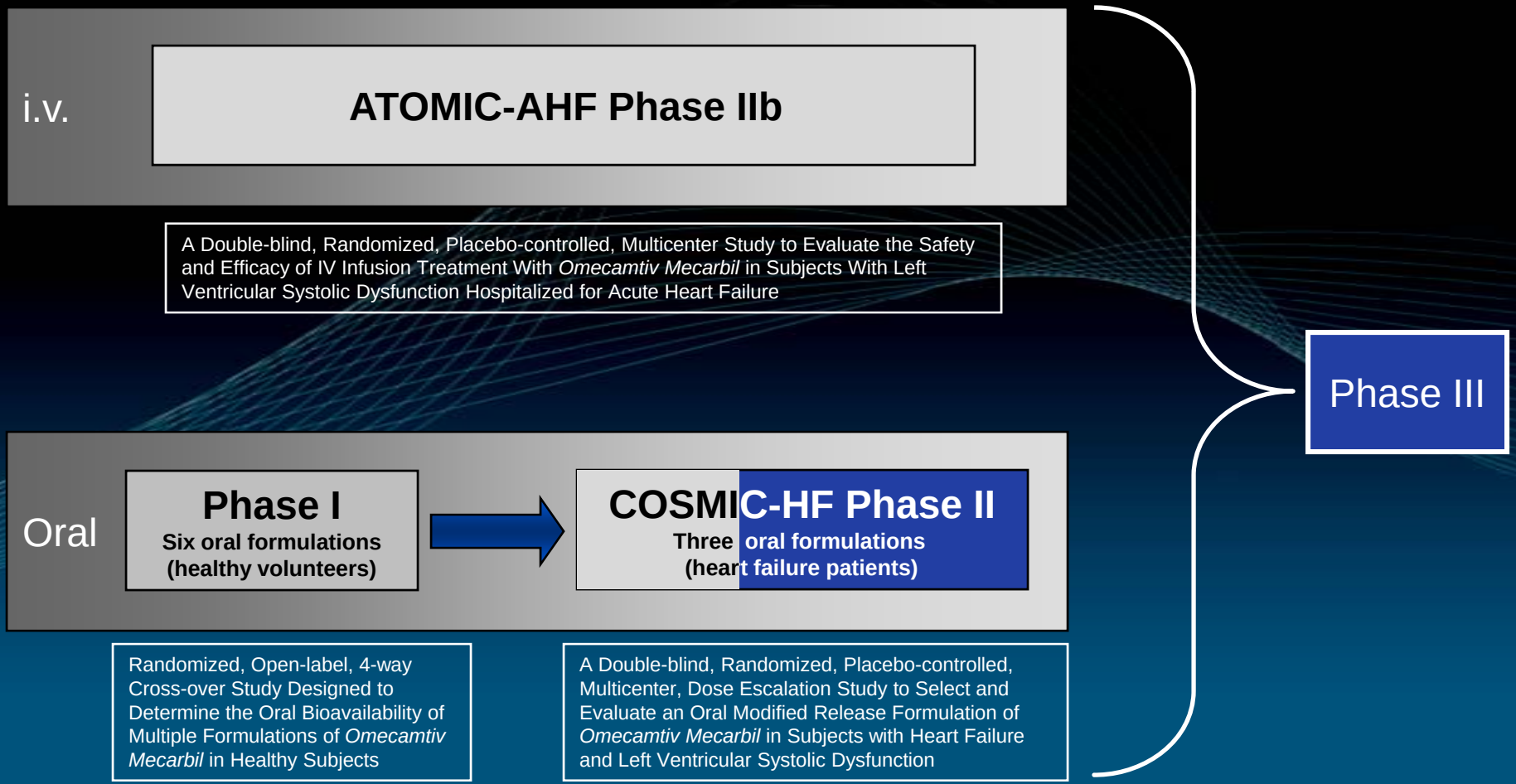
Heart Failure Program: Progression to Phase III



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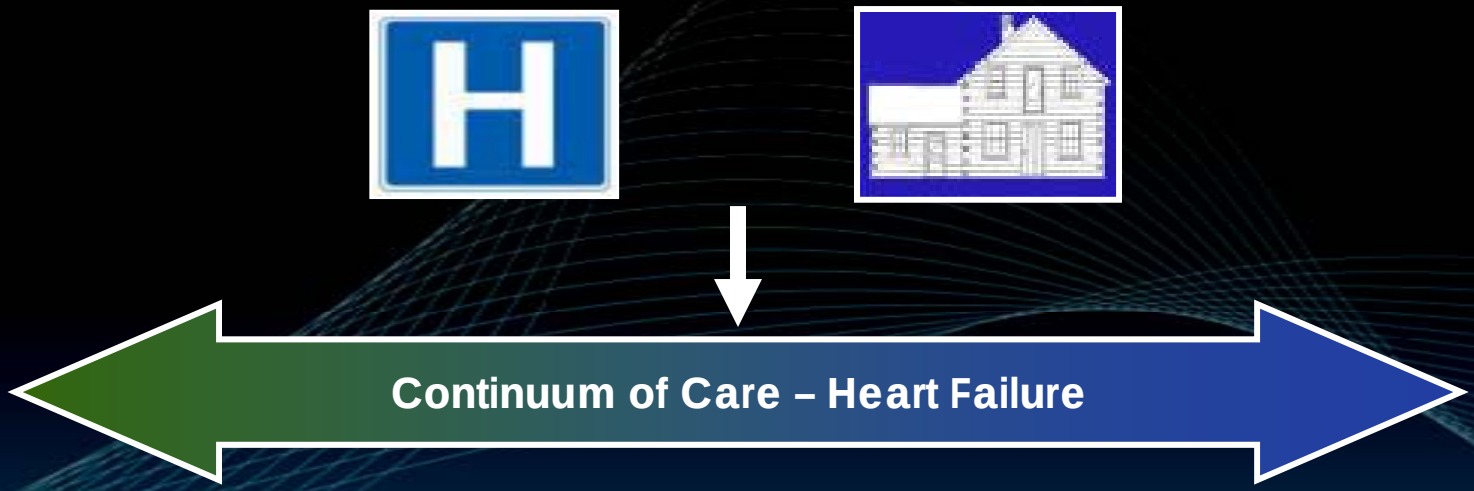
Heart Failure Program: Registration Strategy

Continuum of Care



Potential Indication(s):

- Reduction in death or readmission
- Improvement in symptoms and functional status

Objective is to Develop Therapeutic Regimen that Addresses Continuum of Care to Reduce Re-Hospitalization and Death

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Heart Failure Program: Key Value Driver for 2013

Heart Failure -
Omecamtiv Mecarbil

ATOMIC-AHF
Data Expected
Mid-Year

Expected Results from Phase IIb Trials to Inform Global Registration Program

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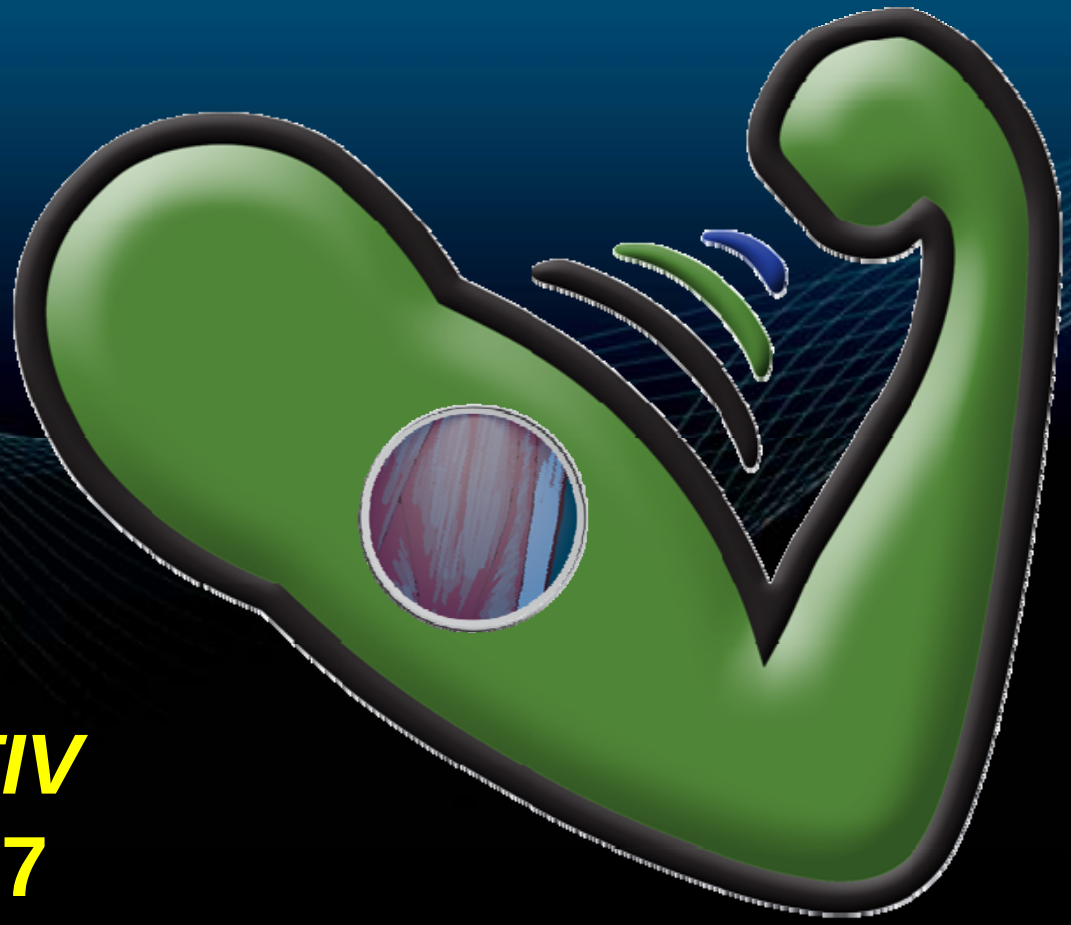
NEUROMUSCULAR PROGRAM

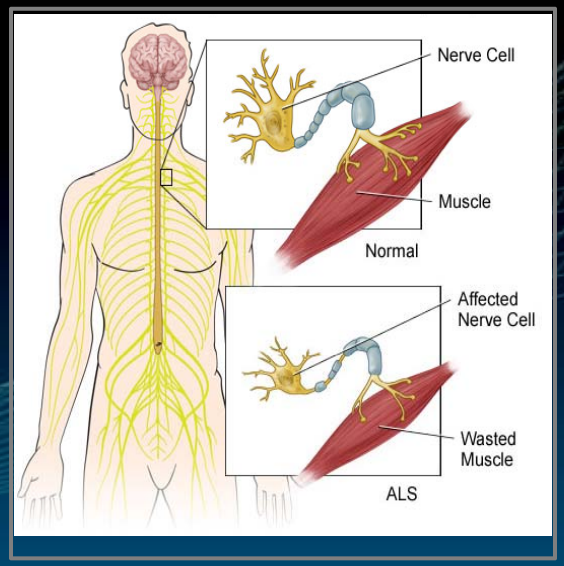


TIRASEMTIV
CK-2127107

Neuromuscular Program: Value Proposition

Amyotrophic Lateral Sclerosis (ALS)

A progressive neuromuscular disorder characterized by the degeneration of upper and lower motor neurons in the brain and spinal cord



- **Weakness/Fatigue:** Deteriorating ability to move, speak, swallow or breath
- **Prognosis:** Generally fatal within 3-5 years from first symptom
- **Death:** Respiratory, pneumonia or asphyxiation

Progressive, Degenerative and Fatal Condition

Sources: UCSF Memory & Aging Website, Experimental Neurology (2009) 219:373 , KOL Interviews

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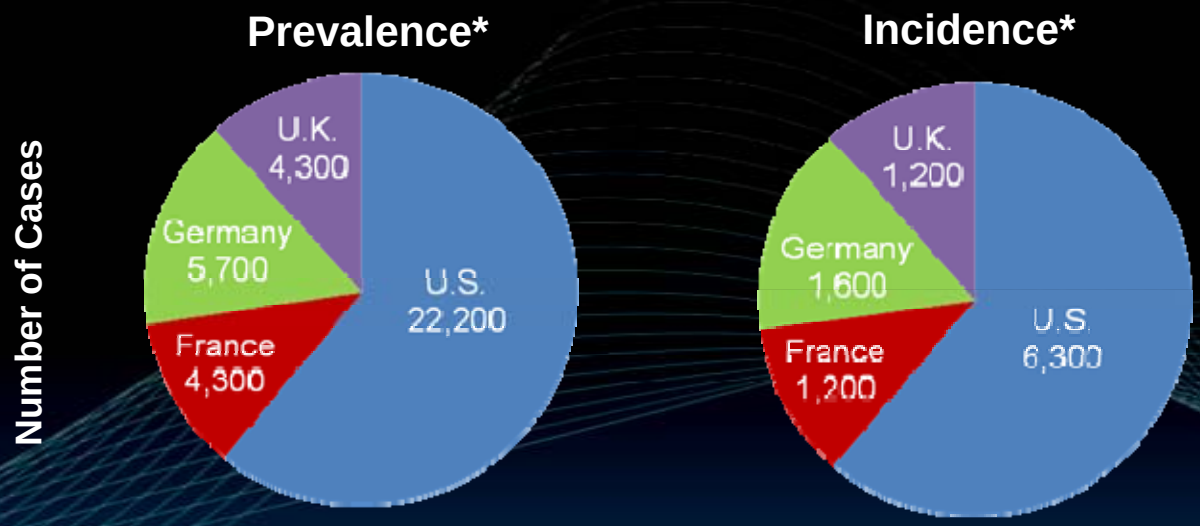
Neuromuscular Program: Value Proposition

Incidence and Prevalence of ALS



- No medicine available to address functional impairment
- Most common motor neuron disease in adults
- Despite the significant incidence rate of the disease, it is offset by the high and rapid mortality

Orphan Populations with Urgent Unmet Needs

** Cytokinetics estimates based on proprietary market research*
Source: KOL interviews, J Neurol Neurosurg Psychiatry (2010) 81:385

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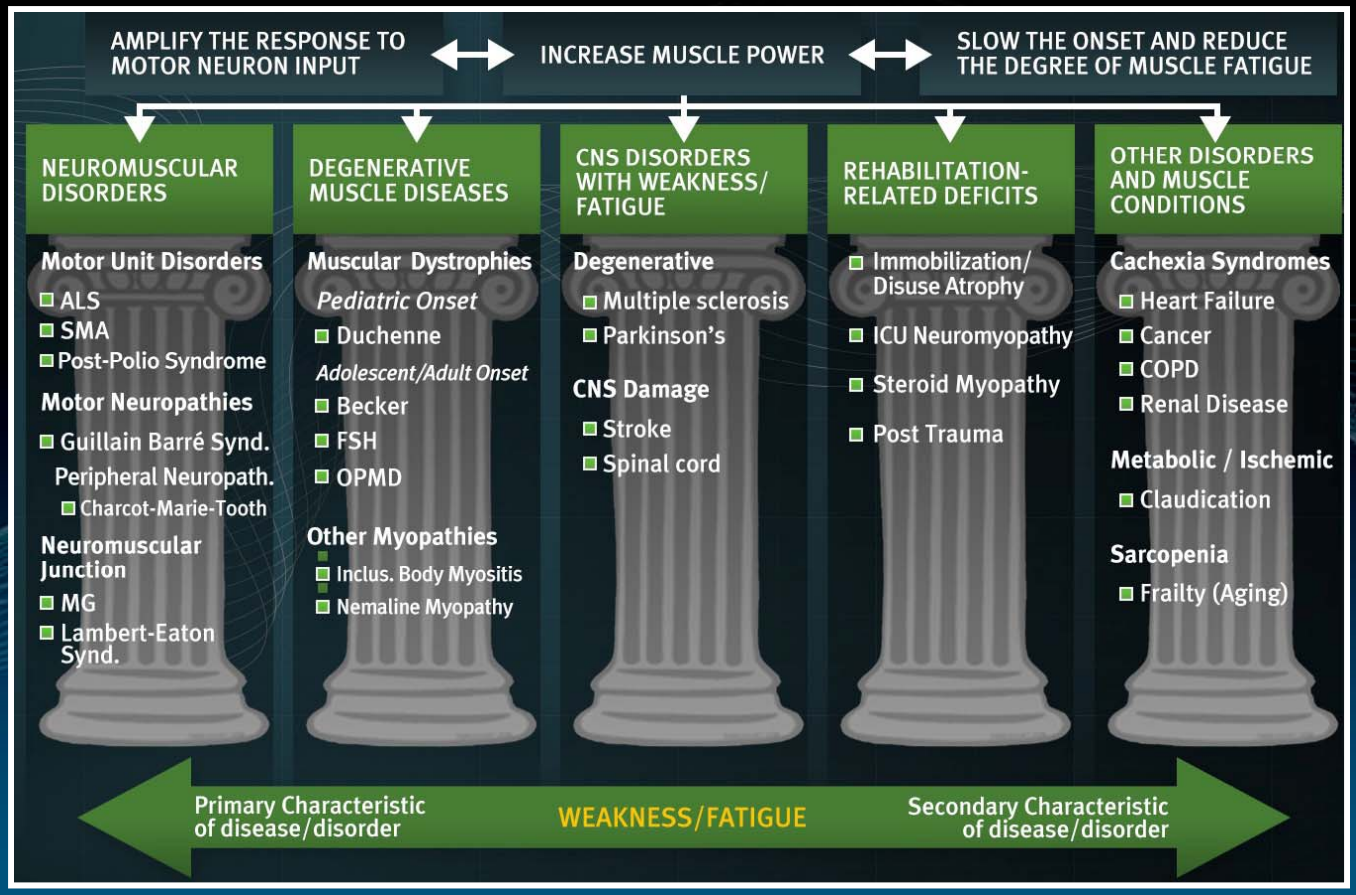
Neuromuscular Program: Value Proposition

Skeletal Muscle Activators: Breadth of Opportunities for Program



Multiple Opportunities for Fast Skeletal Troponin Activators

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Neuromuscular Program Historical Development Progress

Tirasemtiv: Completed Phase I & II Clinical Trials

POPULATION (STUDY #)	N	FORM	TRIAL OBJECTIVES	RESULTS	STATUS
Phase I					
Healthy Subjects (CY 4011 Part A)	57	Oral	Assess safety and tolerability; Evaluate pharmacokinetics (increasing single doses)	MTD determined to be 2000 mg No Serious Adverse Events; Safe and well tolerated	Announced Feb 2010
Healthy Subjects (CY 4011 Part B)	12	Oral	Assess pharmacodynamic effects	Concentration-dependent, statistically significant increases (versus placebo) in peak force; Safe and well tolerated	Announced Jan 2010
Healthy Subjects (CY 4012)	24	Oral	Assess safety and tolerability; Evaluate pharmacokinetics (once –daily for 7 days)	Dose proportional Cmax & AUC24h; low inter-subject variability Modest accumulation from single-dose to steady state No Serious Adverse Events; Safe and well tolerated	Announced Jan 2010
Healthy Subjects (CY 4013)	36	Oral	DDI (*riluzole*) and Food Effect Study, Safety and tolerability	Standard adjustment to *riluzole* dose to be made Best administered to patients in a fasting state	Announced Oct 2011
Phase II					
ALS Patients (CY 4021)	67	Oral	Hypothesis generating; Safety and tolerability; Assess PK/PD effects	Positive changes in patients' overall status at 6 hours Improvements in SNIP, MVV and Grip Strength Endurance Safe and well tolerated as a single dose	Announced Dec 2010
ALS Patients (CY 4024 Part A)	24	Oral	Safety and tolerability of multiple fixed doses (14 days duration without *riluzole*)	Safe & well tolerated over 2 weeks of fixed QD dosing w/o riluzole Dose-related trends to improvements in ALSFRS-R scale and MVV	Announced Nov 2011
ALS Patients (CY 4024 Part B)	25	Oral	Safety and tolerability of multiple fixed doses (14 days duration with *riluzole*)	Safe & well tolerated over 2 weeks of fixed QD dosing w/ riluzole Dose-related trends to improvements in ALSFRS-R scale and MVV	Announced April 2012
ALS Patients (CY 4025)	27	Oral	Safety and tolerability of multiple ascending doses (14 days with *riluzole*)	Safe & well tolerated for 3 weeks of BID dose escalation w/ riluzole Dose-related trends to improvements in ALSFRS-R scale and MVV	Announced April 2012
Claudication Patients (CY 4022)	61	Oral	Hypothesis generating; Safety and tolerability; Assess PK/PD effects	Increased calf muscle performance by heel raise testing Safe and well tolerated	Announced June 2011
Myasthenia Gravis (CY 4023)	32	Oral	Hypothesis generating; Safety and tolerability; Assess PK/PD effects	Improvements in QMG at 6 hours after dosing	Announced Nov 2012

Well Characterized Safety, Tolerability, PK/PD In Healthy Volunteers And ALS Patients

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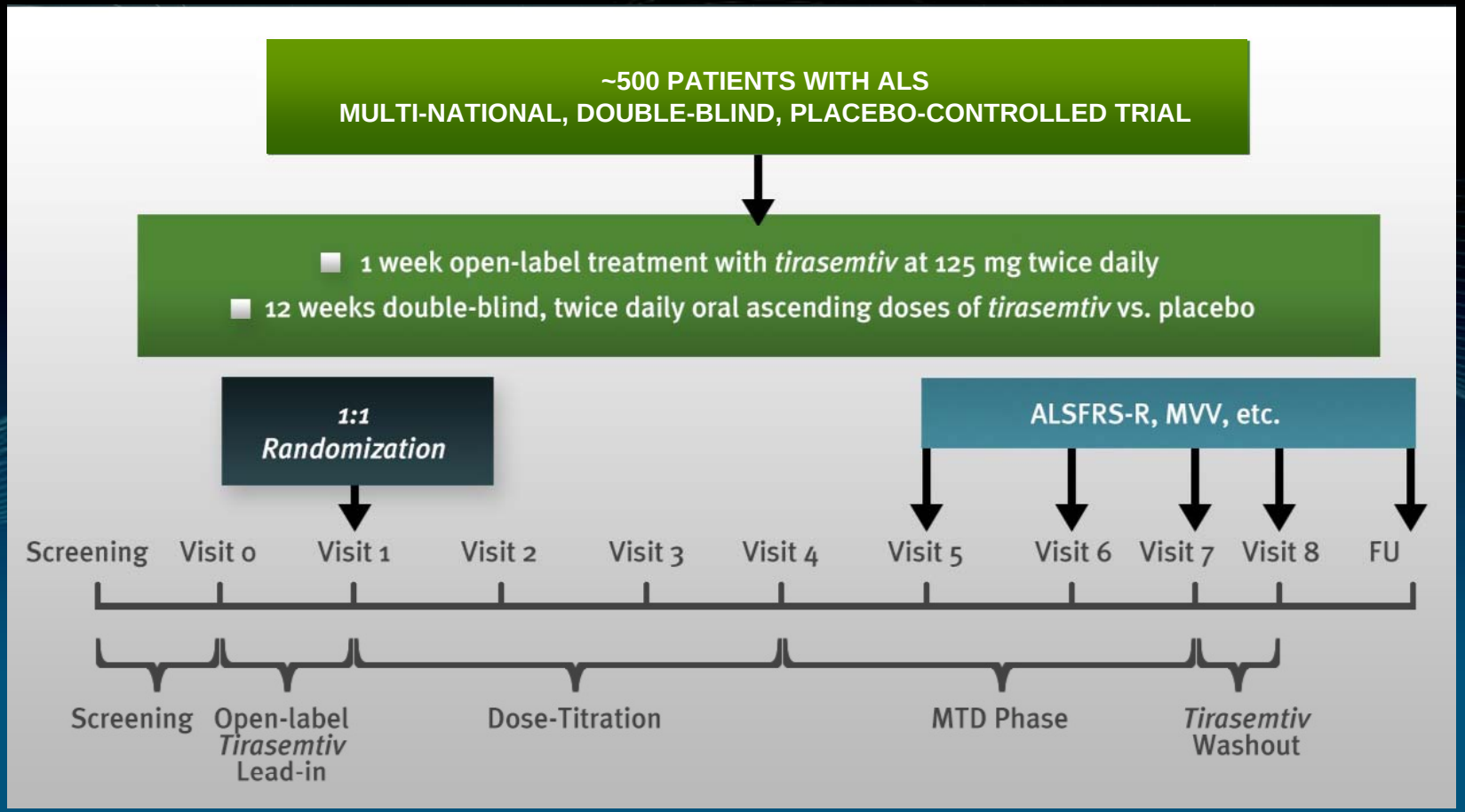
Neuromuscular Program: Current Clinical Trial

BENEFIT-ALS Phase IIb Clinical Trial

Blinded **E**valuation of **N**euromuscular **E**ffects and **F**unctional **I**mprovement with ***T****irasemtiv* in **ALS**



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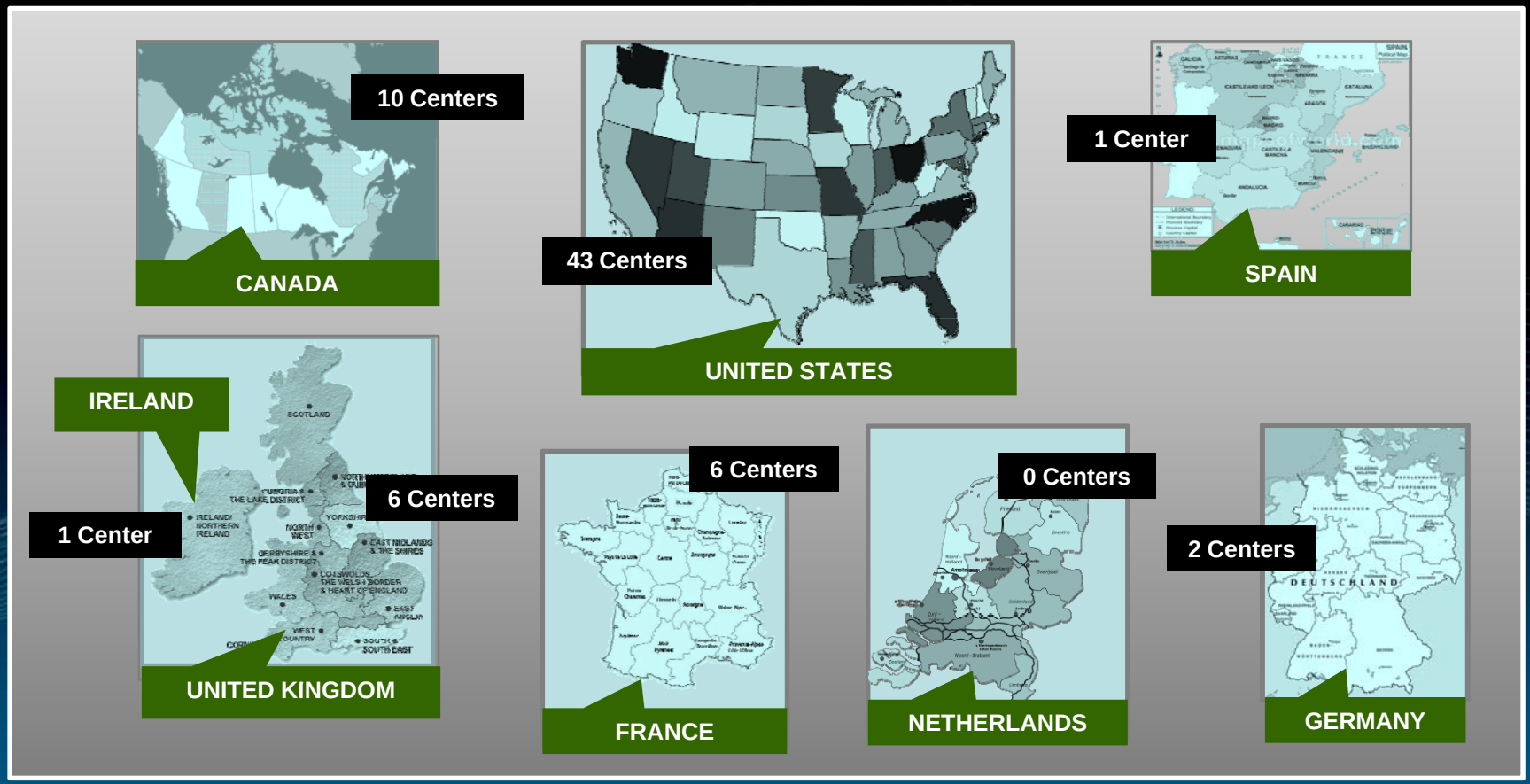
Neuromuscular Program: Current Clinical Trial

BENEFIT-ALS Study Progress



Enrolling in 67 Study Centers in 8 Countries

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Neuromuscular Program: Progression to Registration

2010 - 2012

CY 4021
Phase IIa (Evidence of Effect)

A Phase IIa EoE, Double-blind, Randomized, Placebo-Controlled, Three-Period Crossover, PK/PD Study to Evaluate *tirasemtiv* in Male and Female Patients With ALS.

CY 4024
Phase II
Part A (w/o *riluzole*) Part B (w/ *riluzole*)

A Phase II, Double-Blind, Randomized, Placebo-Controlled Study to Evaluate the Effects of Multiple Doses of *tirasemtiv* in Patients With ALS.

CY 4025
Phase II

A Phase II, Multicenter, Double-Blind, Randomized, Placebo-Controlled Dose Titration Study to Evaluate the Safety, Tolerability and Pharmacodynamic Effects of *tirasemtiv* in Patients With ALS.

2013

BENEFIT-ALS

FDA

EMA

Data by EOY

International Registration Program

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Neuromuscular Program Key Value Driver for 2013

ALS -
Tirasemtiv

BENEFIT-ALS
Data Expected by EoY

Expected Results from Phase IIb Trials to Inform Global Registration Programs

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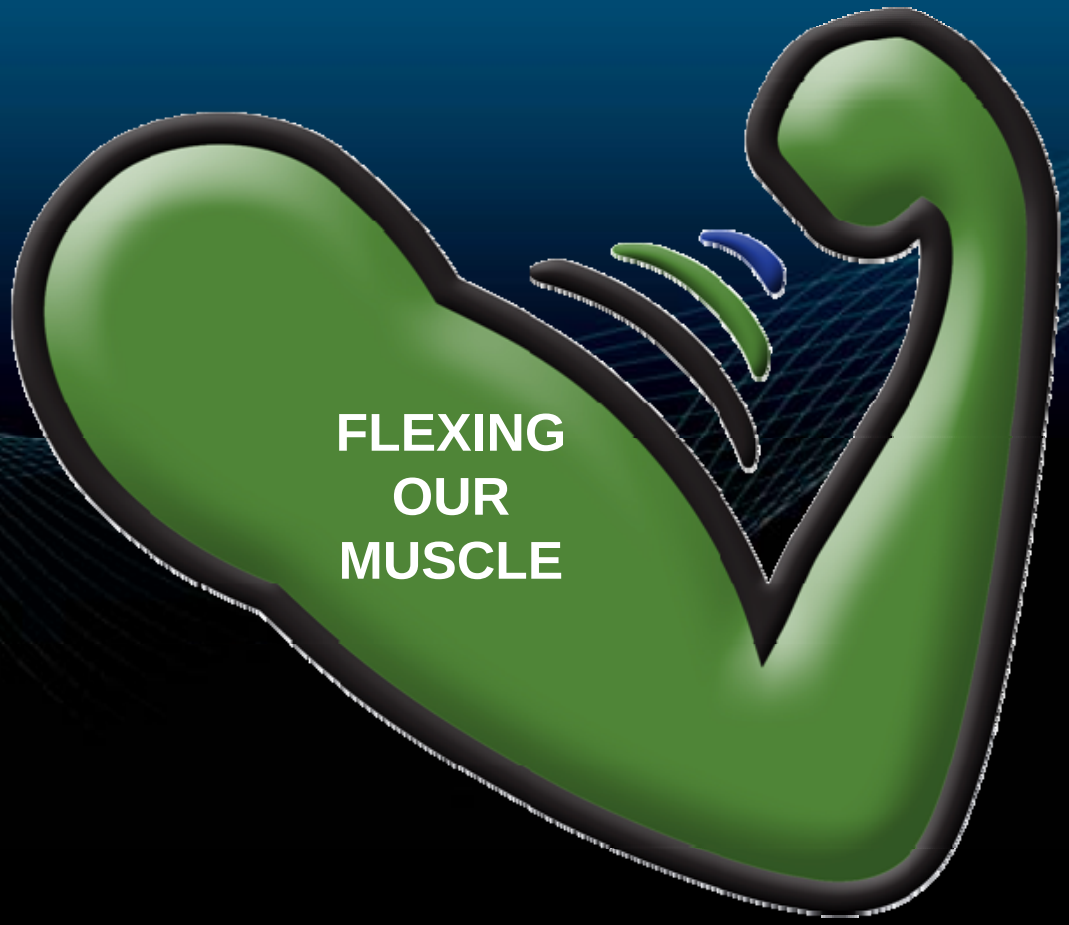
CORPORATE



Corporate: Financials

Condensed Balance Sheet Data

	3/31/2013 (in millions)
Cash and cash equivalents	$13.2
Short-term investments	48.4
Long-term investments	--
Restricted investments	--
Total assets	64.7
Total liabilities	6.3
Working capital	57.9
Accumulated deficit	(461.5)
Total stockholders' equity	58.4
Total shares outstanding	146.5

>14 Months of Cash Burn Based on Q1 2013 Earnings And 2013 Guidance

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Corporate: 2013 Financial Guidance*

	(in millions)
Cash Revenue	$1 - $3
Cash R&D Expenses	$40 - $44
Cash G&A Expenses	$12 - $13

*This financial guidance is on a cash basis and does not include an estimated $4.8 million in non-cash related operating expenses primarily related to stock compensation expense.

*This guidance also does not reflect any potential revenue which may arise from our collaboration with Amgen or additional collaborations with other potential partners.

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Corporate: 2013 Key Value Drivers

Heart Failure -
Omecamtiv Mecarbil

ATOMIC-AHF
Data Expected
Mid-Year

ALS -
Tirasemtiv

BENEFIT-ALS
Data Expected
by EoY

Expected Results from Phase IIb Trials
to Inform Global Registration Programs

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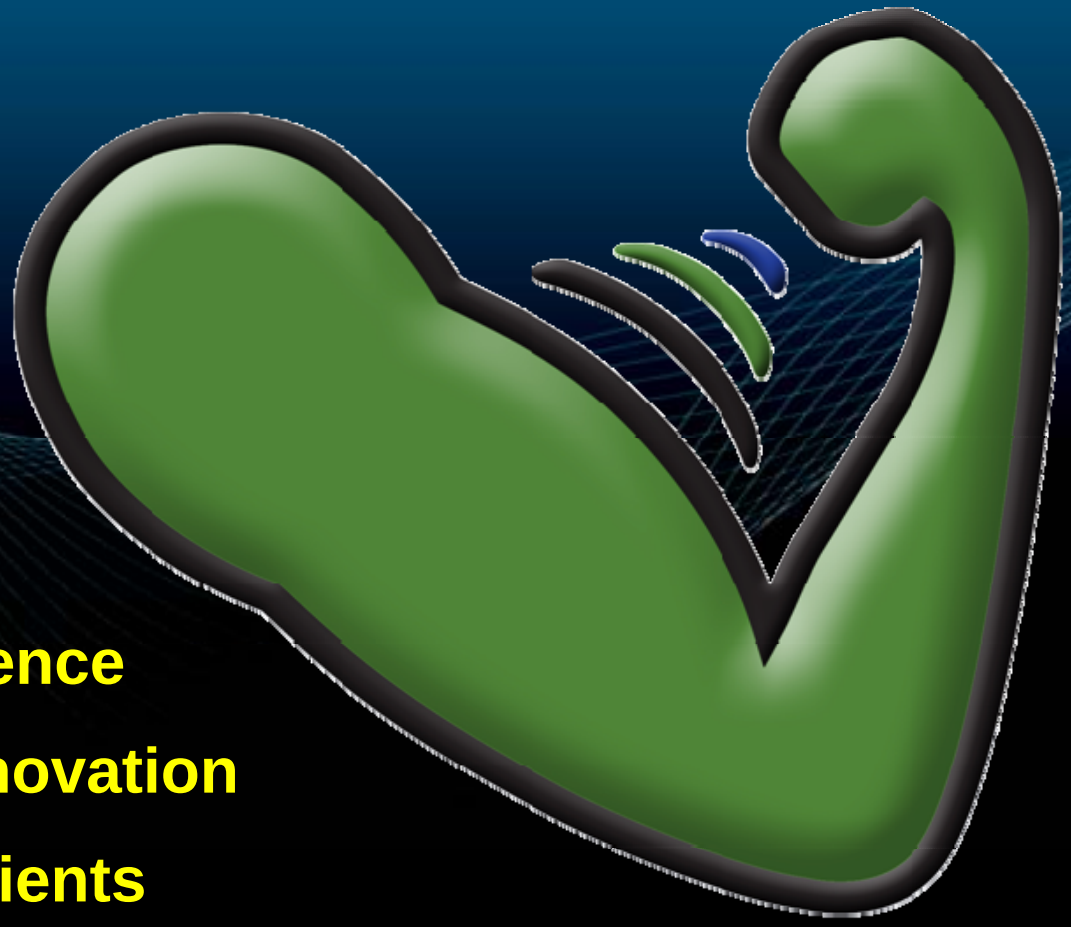
EMBRACING OUR MISSION



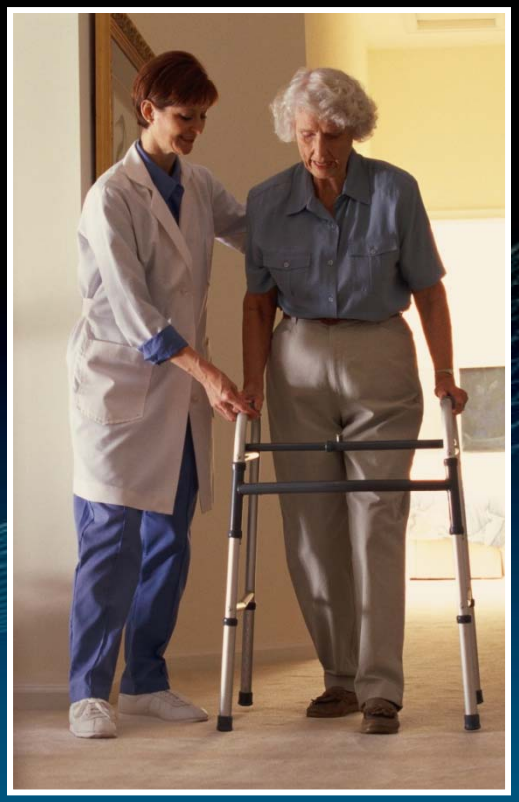
Defined by Science

Powered by Innovation

Inspired by Patients

Cytokinetics Mission

Inspired by Patients



- **We believe that our primary purpose above all other priorities is to find innovative therapeutic solutions for patients suffering from life-threatening illness, such as heart failure and amyotrophic lateral sclerosis.**
- **We are united in our focus towards improving the lives of these patients and their families.**
- **We remember that by keeping the patients as our top priority, we will never fail our other stakeholders.**

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Cytokinetics Mission

Cytokinetics Employees Embrace our Mission

Commitment to ALS

- Jason Becker, Not-Dead-Yet Concert
- Ride to Defeat ALS (ALSA)
- Prize4Life
- ALS-TDI - Young Faces of ALS Corntoss
- Corey's Crusaders
- Golf Tournament to (ALSA Golden West Chapter)
- South Bay Walk to Defeat ALS (ALS Association)
- Therapy Development for Neuromuscular Diseases: Translating Hope Into Promise Meeting Sponsor (MDA)

Commitment to Heart Failure

- Blood Drives with the Blood Centers of the Pacific
- AHA Heart Walk
- AHA Heart Run

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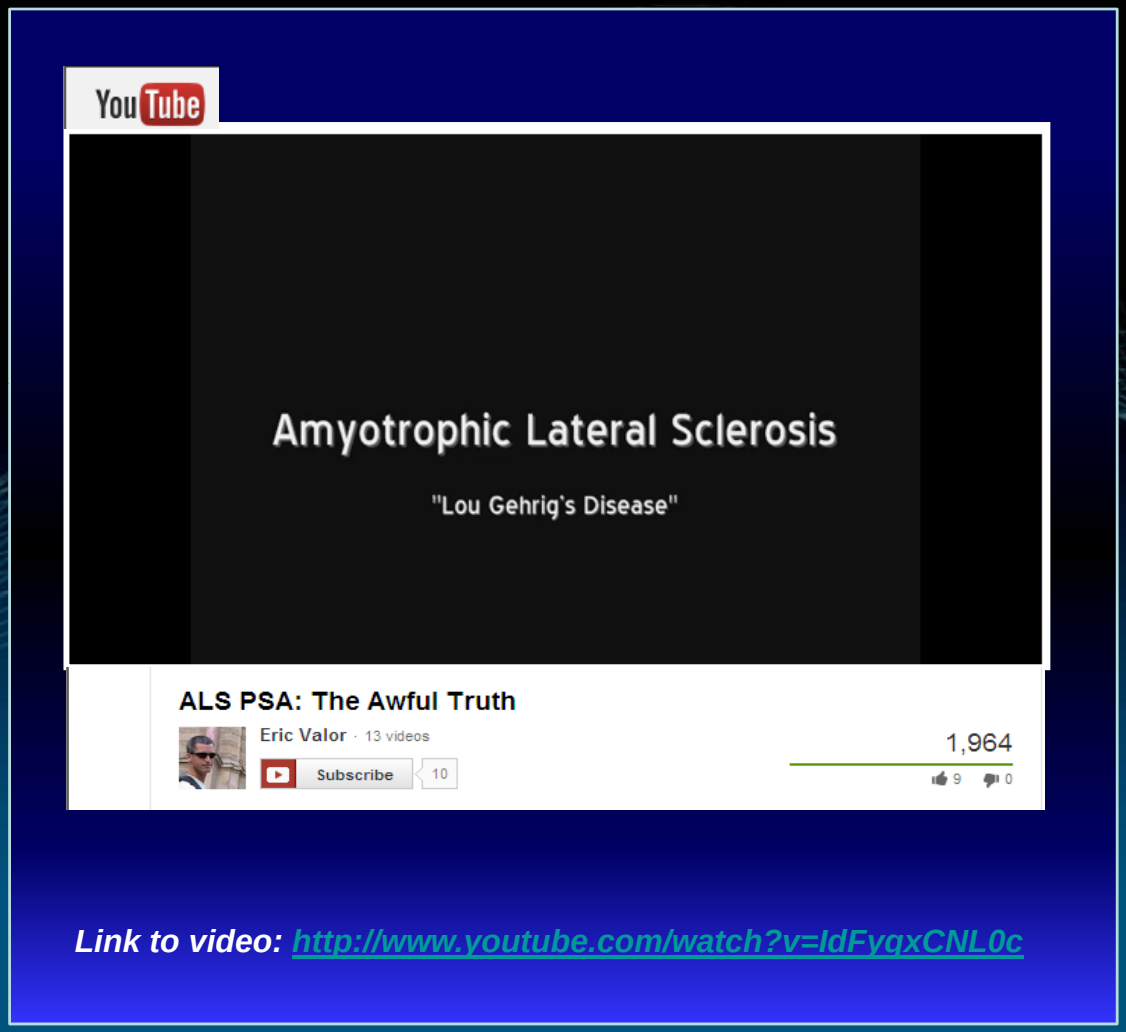
JOIN CYTOKINETICS IN THE FIGHT AGAINST ALS!



Link to video: http://www.youtube.com/watch?v=IdFyqxCNL0c

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