



Roth Capital Growth Stock 24th Annual Conference



March 14, 2012

Safe Harbor

Certain matters discussed in this presentation are "forward-looking statements." These forward-looking statements can generally be identified as by the context of the statement that includes words such as the Company "expects," "anticipates" or words of similar import. Similarly, statements that describe the Company's future plans, initiatives, milestones, objectives or goals are also forward-looking statements. Such forward-looking statements are subject to certain risks and uncertainties, including the financial performance of the Company and market valuations of its stock, which could cause actual results to differ materially from those currently anticipated, and other risks outlined from time-to-time in our reports filed with the Securities and Exchange Commission. Although the Company believes the expectations reflected in any forward-looking statements are based on reasonable assumptions, the Company can give no assurance that its expectations will be attained, or that risk factors listed will not affect those results or expectations in the future. Shareholders, potential investors and other readers are urged to consider these factors carefully in evaluating any forward-looking statements. Forward-looking statements made in this presentation are only made as of the date of this presentation and the Company undertakes no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.

KOOL Strategic Overview

- Who we are: Enabling technology provider for the automation of adult cell processing, storage and administration (in the lab and at the point of care):

	Cell Sources	Cell Products	Indications Treated	
Today	<ul style="list-style-type: none"> • Cord blood • Peripheral blood • Bone marrow 	<ul style="list-style-type: none"> • HSC • BMC • PRP 	<ul style="list-style-type: none"> • Cord blood transplant • Spinal fusion • Non-union fractures • Cardiac (pre-clinical) 	
Future	<ul style="list-style-type: none"> • Cord blood • Peripheral blood • Bone marrow • Cord tissue • Adipose tissue 	<ul style="list-style-type: none"> • HSC • BMC • PRP • MSC • ADSC • iPSC 	<ul style="list-style-type: none"> • Cord blood transplant • Spinal fusion • Non-union fractures • Cardiac (pre-clinical) 	<ul style="list-style-type: none"> • Orthopedic • Critical Limb Ischemia • PAD, CHF • Neurological disorders

- Business Development & Commercialization pathways for Growth:

- First - Existing products into new geographies and territories
- Second- Line extensions for new applications via existing distribution
- Third - New products for new applications



Growth Opportunity

- A worldwide leader in cell processing and cryopreservation technology
- Strong installed base:
 - Cord Blood Registry (largest family bank); New York Cord Blood Bank (largest public bank)
 - 35+ cord blood banks (globally) process stem cells using our AutoXpress® (“AXP”) System
 - 100+ cord blood banks store stem cells in our BioArchive System (more than 200 placed worldwide)
 - 4,000+ bone marrow procedures performed annually using our technologies
- Entering breakout international markets
 - Establishing foothold in Asia: China, India, and Southeast Asia
 - China cord blood banking automation opportunity expected to open up in 6-9 months
- Multiple new product opportunities
 - Line extensions for new applications via existing distribution
 - New products for new applications (Adipose/cord tissue)
- Positioned to capitalize from macro trends in regenerative medicine

Strategic Focus

- January 2012
 - Executive management transition
 - Streamlined, focused management team
- Reduced annual operating expenses by 15%, or \$2 million
- Refocus on engineering innovation targeting current platform enhancements and new higher margin disposables for P.O.C and laboratory applications
- Jettisoning non-core businesses over next two quarters, allowing for further organizational optimization

New Management Team

- Matthew Plavan, CEO/CFO, Board Member
 - CFO since 2005; COO, 2008-2010
 - Prior experience includes McKesson/Ernst & Young
- Hal Baker, VP, Commercial Operations & Marketing
 - Joined company in 2009 as VP, Sales
 - Prior experience includes Pall/Gambro Healthcare
- Ken Pappa, VP, Quality, Engineering & Operations
 - Joined company in 2006 and has held several management positions, most recently VP, Operations & Engineering
 - Prior experience with Hewlett-Packard/Agilent Technologies
- Kevin Cooksy, VP, Corporate Development, Scientific Affairs & Regulatory
 - Joined as Vice President of Corporate Development in 2011
 - Prior experience includes Agilent Technologies/Nektar Therapeutics

Recent Events

- Collaboration with Arthrex for Res-Q[®] processing of PRP and bone marrow concentrates for sports medicine indications
- Selection of BioArchive by Canadian Blood Services for new public cord blood bank
- Approval of AXP in India
- Favorable data from two Res-Q clinical evaluations (CLI/long bone fracture)

Cord Blood Stem Cell Products – Processing & Storage

Our Solution for Scaling – Automated Manufacturing Process

Separate placenta



Automated isolation of stem cells into cryopreservation bag



Stores cord blood stem cells in liquid nitrogen @ -196° C



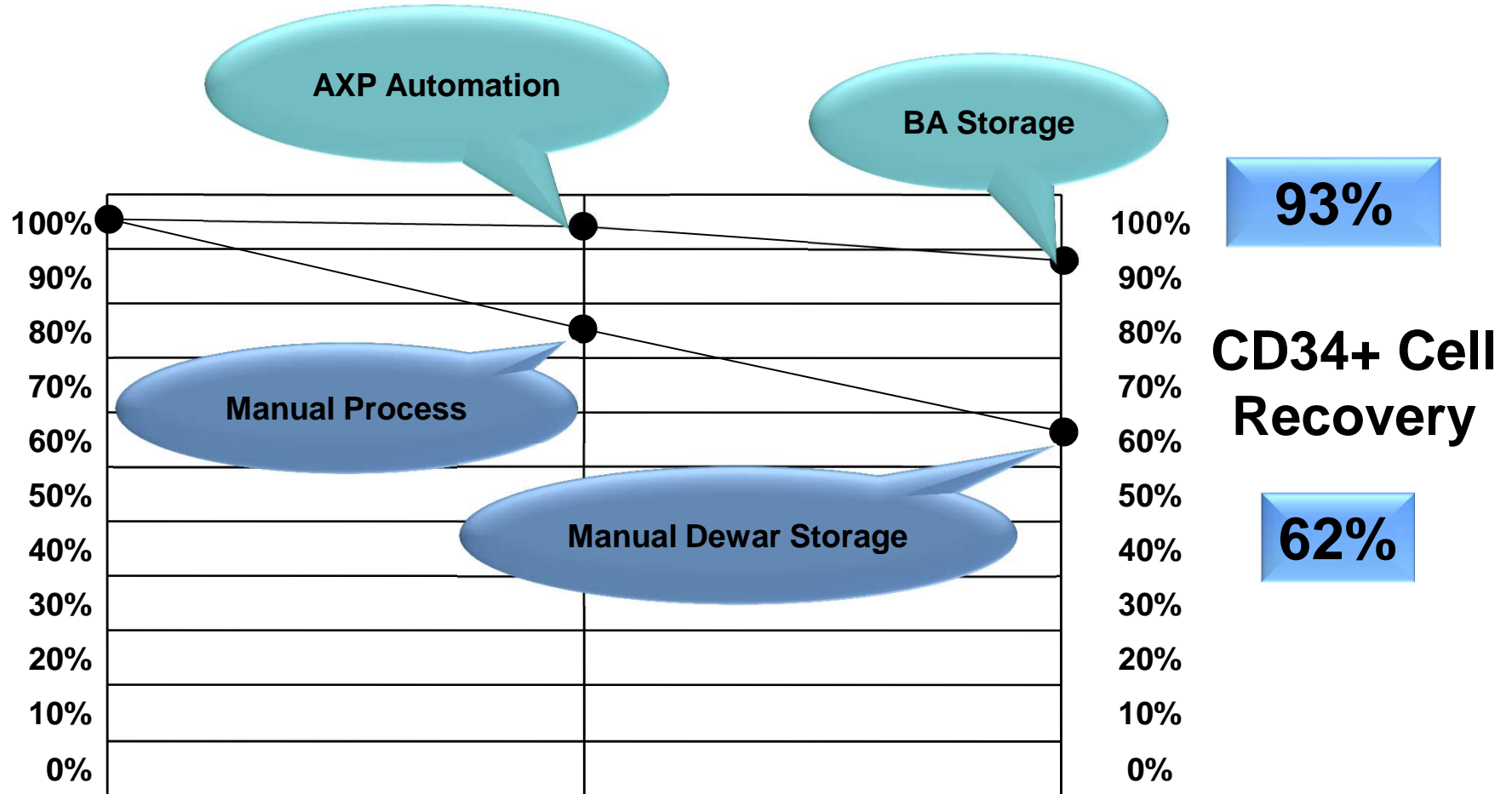
- Closed System
- Faster
- Scalable

BEST IN CLASS

- Precision control for accuracy & quality
 - Computer controlled freezing curve
 - Robotic and optical storage and retrieval
- High cell viability:
 - Eliminates transient warming events
 - 94% post-thaw cell viability when used in conjunction with AXP platform
- Large sample capacity 3,600+

Maximization of Stem Cell Viability

Cell Recovery Comparison-CD34+ cells



Higher Cell Dose = Higher Patient Survival Rates

Bone Marrow & PRP Opportunity

Our Solution to the Challenges of Manual Processing

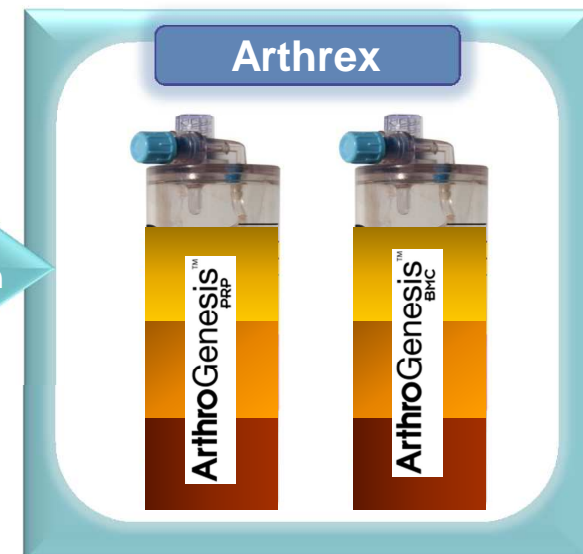
- Closed System
- Faster
- Scalable

Disposable, Automated Point-of-Care Solution for Rapid and Easy Bone Marrow Processing

- Point-of-care product
- High MNC recovery (>75%)
- Simple and easy to use
- Fast processing time (<15 min)
- Flexible volume capacity
- Closed sterile system



 Res-Q BMC



Automated Closed (Sterile) System

- High MNC recovery (>85%)
- High RBC depletion (>90%)
- 6 unit simultaneous processing
- Laboratory product
- Product extension of AXP



 MarrowXpress®

Major New Res-Q Distribution Deal

- Worldwide leader in sports medicine product development and educational services for orthopedic surgeons
- More than 5,000 products for arthroscopic and minimally invasive orthopaedic surgical procedures
- Global 5 yr private label Res-Q PRP & BMC distribution agreement targeting sports medicine/orthopedic procedures
- Estimated worth up to \$25 million in new revenues over initial contract term
- Expect initial shipments in the second calendar quarter of 2012



Worldwide Distribution Partners



Res-Q, MXP
India, Malaysia,
Thailand



Res-Q PRP & BMC
Global-Private
Label



Res-Q, MXP
China,
Hong Kong



AXP, BioArchive
China, India,
Japan

GE Healthcare



AXP, Res-Q
Canada, US,
19 Euro Countries,
11 Other Countries

CEI

AXP, BioArchive
6 Countries in
Latin America



- Full coverage of high GDP countries
- 80% global coverage

China/India Update

- China:

- Virtually 100% manual processing today
- Two major cord blood bank customers (Boyalife; Beike); in discussion/negotiations with others
- Expected regulatory approval dates:
 - AXP – mid year 2012
 - BioArchive – Q3 2012
 - Res-Q – by end of 2012

- India:

- Virtually 100% manual processing today
- Approval for BioArchive/AXP/Res-Q60 BMC received
- Initiated commercial launch of AXP and BioArchive with Fenwal
- Installed BioArchive and multiple AXPs at Max Hospital in Gurgaon, India

Growth Strategy

Cord Blood Proc/Store Market - \$50M

- Mature market; significant TG share gain in **next 3 years**
- Use proceeds to seed therapeutic trials with TG technology & know-how

POC Stem Cell Market - \$100M

- Expand 510(k) Indications for Spine & Cartilage in **next 3 years**
- Develop adipose processing as model matures

Spine Trial

Cartilage Trial

CLI Trial

Cardiac Trial

Addressable market
for top 5 therapeutic
indications \$800M

- Spine
- Cartilage
- CLI
- Cardiac

2012

2013

2014

2015

2016

2017

2018

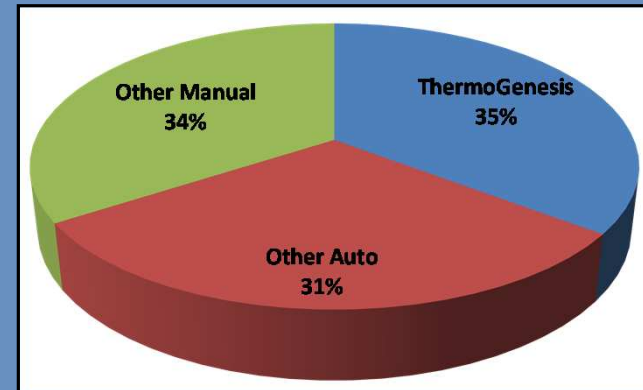
2019

Near-Term Cord Blood Growth Catalysts

- Achieve registration approvals in China for AXP/BioArchive/Res-Q; initiate commercial sales
- Aggressively grow share in cord blood:
 - Convert manual processing banks to automated systems
 - Lead China and India conversion from manual to automated
 - Replace competitive automated systems
 - Be positioned for U.S. and European market rebounds when economy recovers

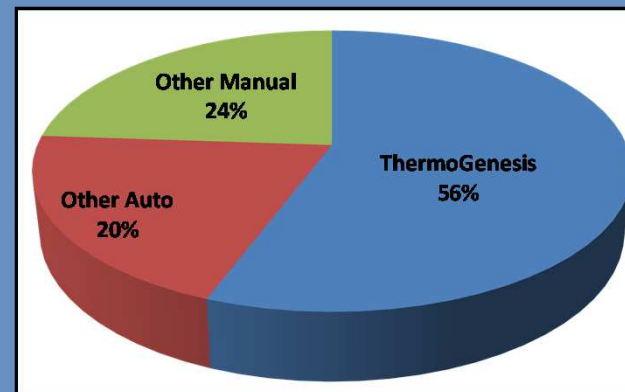
¹ ThermoGenesis Estimate

Cord Blood Processing Market Today¹



35% of Market

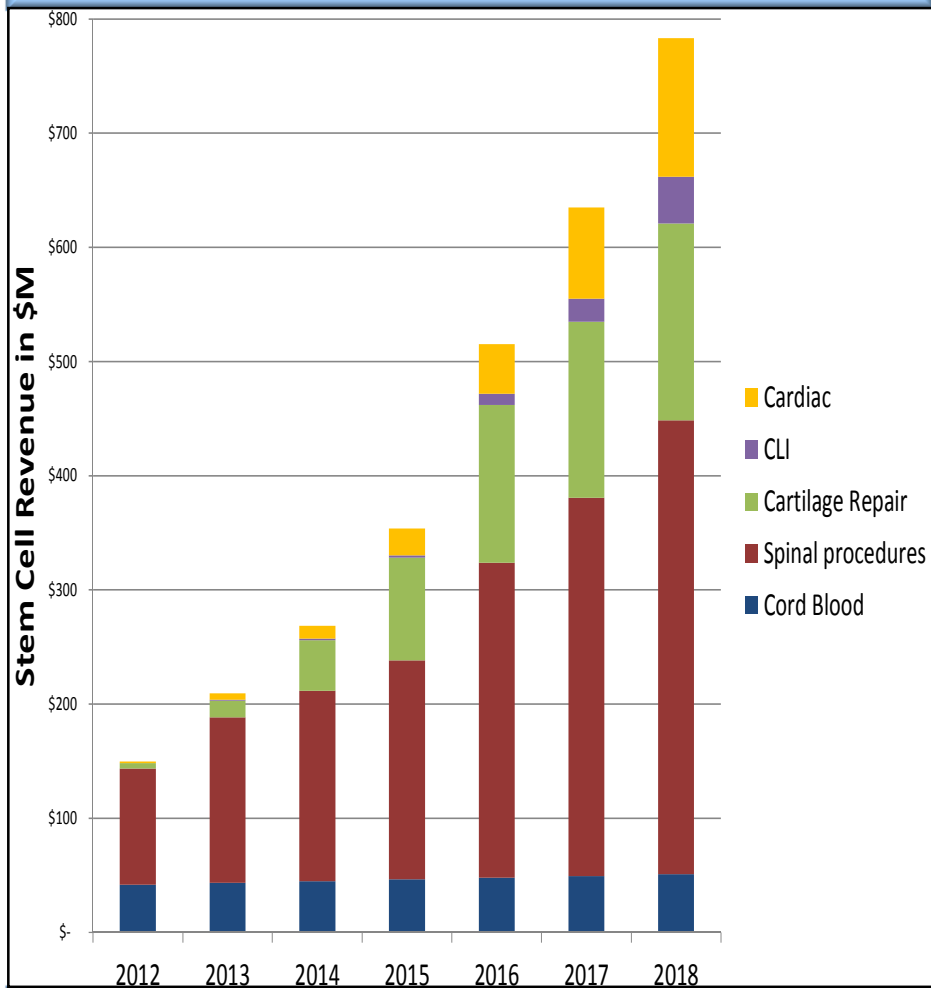
Cord Blood Processing Market in 2015¹



56% of Market

Mid & Long-Term Growth Platform

TG's addressable market for top 5 indications



- TG's % of addressable market is ~15% today
- We expect to double our % market share by 2015


- Leverage base platforms in bone marrow and PRP into new indications/new markets, including spine, cartilage and cardiovascular
- Develop new platform applications, such as cord tissue and adipose tissue as new, less invasive cell sources are adopted
- Explore applications in cell collection, expansion and delivery

Mid & Long-Term Growth Platform (Con't)

Business Development Adjacency Analysis

Complement organic growth efforts with business development for new and adjacent market opportunities

Regenerative Medicine Landscape

Cell Source	Other Tissue		New Platform			
	Adipose		New Platform			Partner Opportunity
	Peripheral Blood		Line Extensions			
	Bone Marrow		Line Extensions			Partner Opportunity
	Cord Blood			Line Extensions		
		Collect	Process	Store	Expand/ Differentiate	Delivery
		<ul style="list-style-type: none"> • Bag Sets 	<ul style="list-style-type: none"> • Automated Systems • Cell Factory 	<ul style="list-style-type: none"> • Cryo-Preservation 	<ul style="list-style-type: none"> • MSC-POC • ADSC-POC • MNC cell processing 	<ul style="list-style-type: none"> • Catheters • Scaffolds

Workflow

- ThermoGenesis Today
- Business Development Targets

Financial Strategy

- Company resources better aligned with strategic goals, current revenues and likely timing of new market opportunities
- Manage cash through reduced operating expenses and stable revenues
- Execute off-shore manufacturing cost reduction programs
- Improve gross margins as legacy businesses wind down; enhance quality of, and manufacturing efficiency for core products
- Focused investments in product quality/near-term market opportunities

Fiscal Highlights

FY'11 Revenue ~\$23 million

FY'11 Loss ~ \$2.5 million

Cash at 12/31/11 \$8.7 million

No debt at 12/31/11

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