
UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 8-K

CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of report (date of earliest event reported):

January 17, 2006

Aastrom Biosciences, Inc.

(Exact name of registrant as specified in its charter)

Michigan

(State or other jurisdiction of
incorporation)

0-22025

(Commission File No.)

94-3096597

(I.R.S. Employer
Identification No.)

24 Frank Lloyd Wright Drive

P.O. Box 376

Ann Arbor, Michigan 48106

(Address of principal executive offices)

Registrant's telephone number, including area code:

(734) 930-5555

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 7.01 Regulation FD Disclosure.

Attached hereto as Exhibit 99.1, which is incorporated herein by reference, is a copy of certain slides used by the Company in making a presentation to analysts and potential investors and that are expected to be used in subsequent presentations to interested parties, including analysts, potential investors and shareholders. This information is not "filed" pursuant to the Securities Exchange Act and is not incorporated by reference into any Securities Act registration statements. Additionally, the submission of this report on Form 8-K is not an admission as to the materiality of any information in this report that is required to be disclosed solely by Regulation FD. Any information in this report supercedes inconsistent or outdated information contained in earlier Regulation FD disclosures.

Item 9.01 Financial Statements and Exhibits.

(c) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
99.1	Slides used in presentation

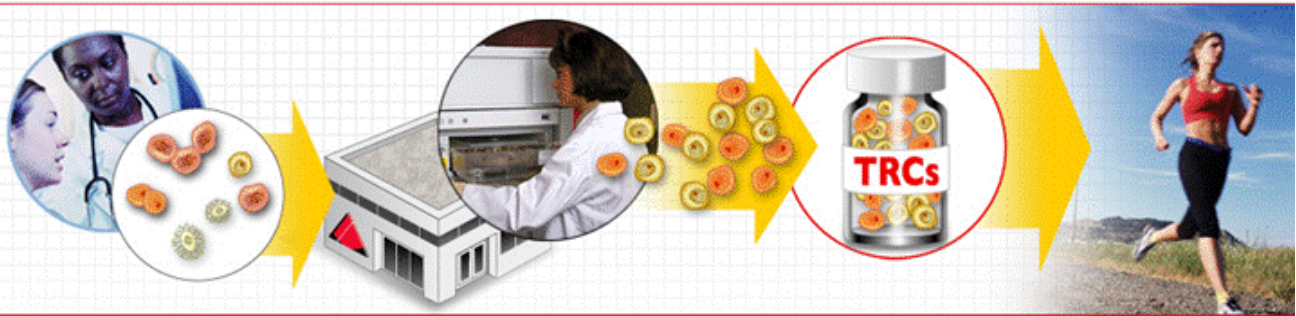
SIGNATURES

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

Date: January 17, 2006

AASTROM BIOSCIENCES, INC.

By: /s/ Gerald D. Brennan, Jr.
Gerald D. Brennan, Jr.
Vice President, Administrative and
Financial Operations, CFO



*Capturing the Therapeutic Potential of
Bone Marrow Stem Cells*

Investor Presentation
January 17, 2006

(Nasdaq:ASTM)

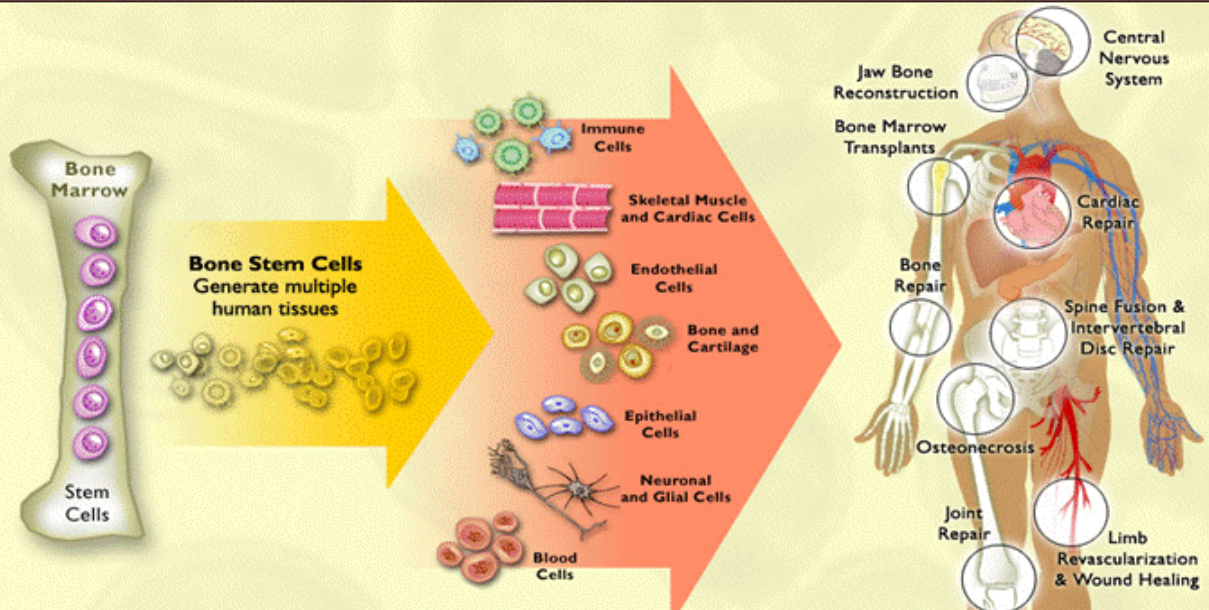
SAFE HARBOR

- This presentation contains forward-looking statements, including, without limitation, statements concerning product-development objectives and anticipated timing, clinical trial strategies, timing and expected results, potential market opportunities and revenue models, market development plans, anticipated key milestones and potential advantages and applications of Tissue Repair Cells (TRCs), which involve certain risks and uncertainties. Actual results may differ significantly from the expectations contained in the forward-looking statements.
- Among the factors that may result in differences are the results obtained from clinical trials and development activities, regulatory approval requirements, competitive conditions and availability of resources.
- These and other significant factors are discussed in greater detail in Aastrom's Annual Report on Form 10-K and other filings with the Securities and Exchange Commission.

Overview

- Pipeline of tissue regeneration products in development
- Proprietary bone marrow stem cell technology: *Tissue Repair Cells ("TRCs")*
- Proprietary manufacturing platform for regulatory compliance: *AastromReplacell® System*
- Active clinical trials and development programs in orthopedics, peripheral vascular and cardiac tissue disorders
- Established clinical safety and efficacy of TRCs as substitute for large volumes of bone marrow
- 12+ years of bone marrow stem cell product and manufacturing development

The Potential of Bone Marrow Stem Cells



Therapy requires a large number of bone marrow stem cells

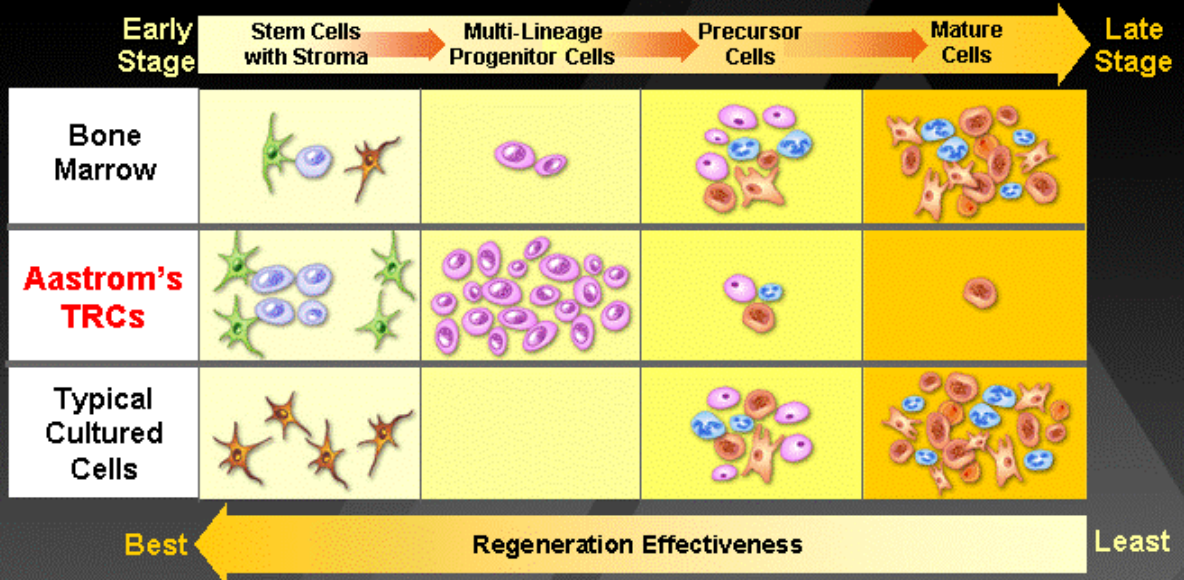
Aastrom's Solution: Tissue Repair Cells

Alternative for Large Volume Bone Marrow

- Grown from a small volume bone marrow aspirate in 12-day automated process
- Provide the equivalent of 1+ liter of bone marrow
- Contain active cellular components of bone marrow for tissue regeneration (stem, progenitor and stromal cells)
- Available for implant or injection
- New treatments for severe tissue injury or to prevent degenerative disease progression

Tissue Repair Cells

Replaces 1+ Liter of Native Bone Marrow

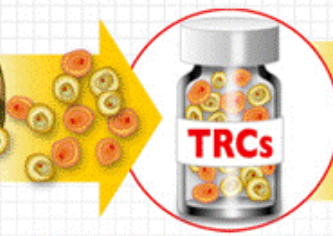


TRC Production Process

Small aspirate
from patient



TRCs produced in
AastromReplicell System



TRCs generate
healthy tissues



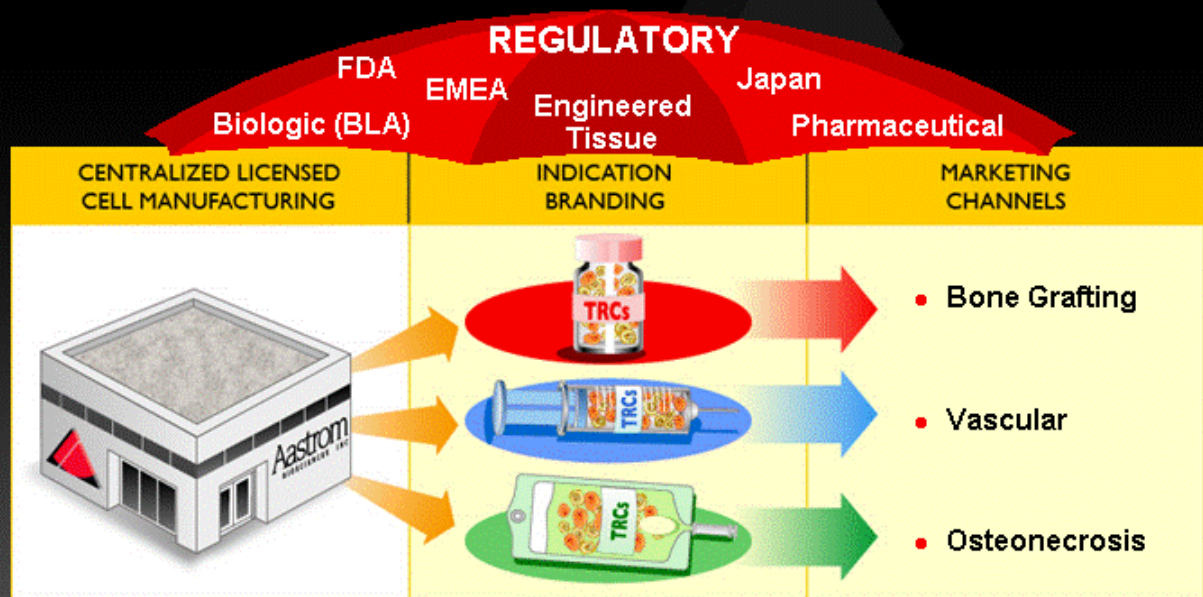
Office
procedure

Centralized GMP
manufacturing facility

Patented stem cell
product in 12 days

> 200 patients
treated to date

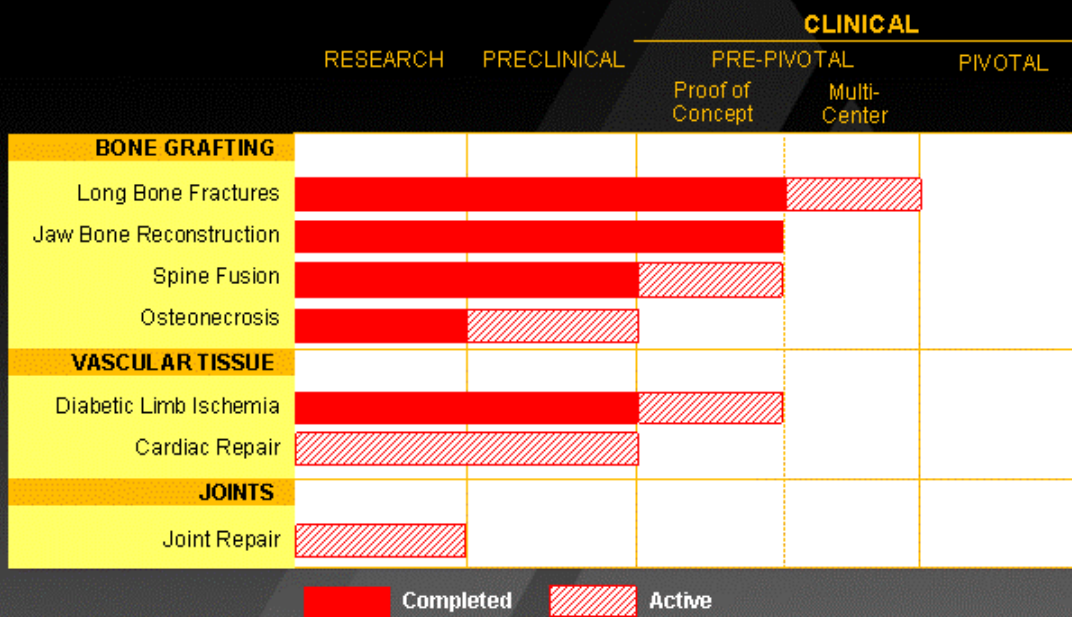
Commercialization Model



TRCs: Results Demonstrated to Date

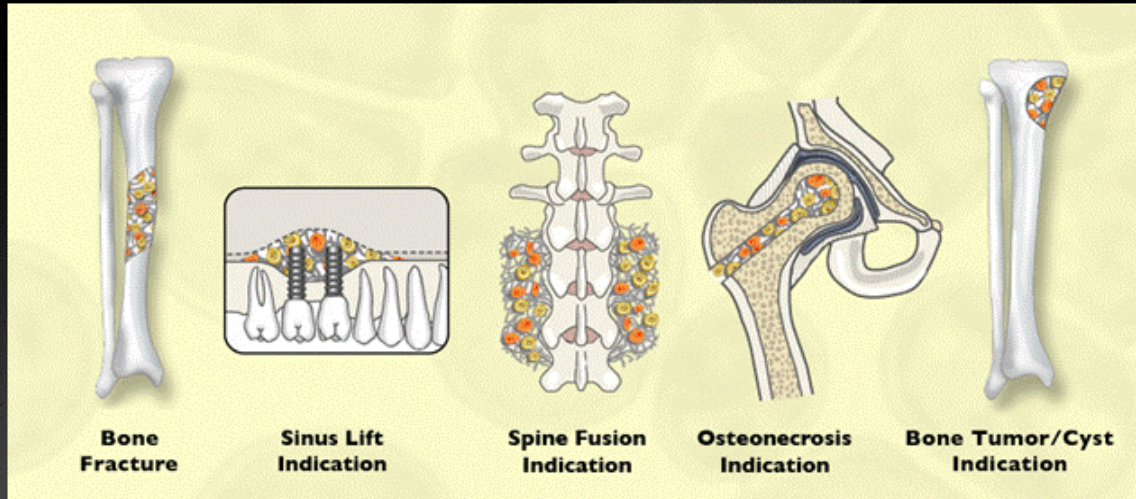
<u>Tissue</u>	<u>Result</u>
Clinical <ul style="list-style-type: none">• Bone Marrow• Hematopoietic• Bone - Systemic• Bone - Local	O <ul style="list-style-type: none">• Engraftment similar to full BMT• Blood/immune system recovery post-chemotherapy• Skeletal generation in hypophosphatasia patient• Repair of non-union fractures and jaw bone
Laboratory <ul style="list-style-type: none">• Vascular• Cartilage	O <ul style="list-style-type: none">• Vascular tubule formation• Cartilage cell development
Animal <ul style="list-style-type: none">• Cardiac	O <ul style="list-style-type: none">• Improved function of infarcted tissue

Clinical Development Pipeline



TRCs for Bone Grafting

2 Million+ Bone Graft Procedures for These Indications



Sources: Millenium Research Group CY2009 projections;
Data Monitor 2002 [U.S., EU and Japan]



TRC Development Strategy

Bone Graft Indication

- Rationale
 - Market with multiple areas of use
 - May offer earliest/safest market entry for TRCs
- Issues
 - Crowded market
 - Difficult to run trials for certain indications
- Strategy
 - Complete proof of concept trials
 - Select indication for registration trial
 - Market for severe injury/problem niche
 - Establish complete working business model

TRC Clinical Trial - Orthopedics

Pre-Pivotal / Proof of Concept

- Non-Union Fractures (failed SOC)
 - Lead trial completed (6 treatments)
 - Bone growth, healing and safety shown in all patients
- Jaw Bone Reconstruction (sinus lift)
 - Lead trial completed (5 patients with internal control)
 - Bone growth and safety in all patients
 - Improved safety (inflammation) and bone growth over control
- Spine Fusion
 - Lead trial (PLGF) IND approved and accruals expected Q1 CY2006
 - 5 patients to be evaluated for safety before expanding
- Osteonecrosis
 - Lead study targeted in Q2 CY2006 (EU)

SOC = Standard of Care
PLGF = Posterior Lateral Gutter Fusion



TRC Clinical Trial - Orthopedics

Pre-Pivotal / Multi-Center

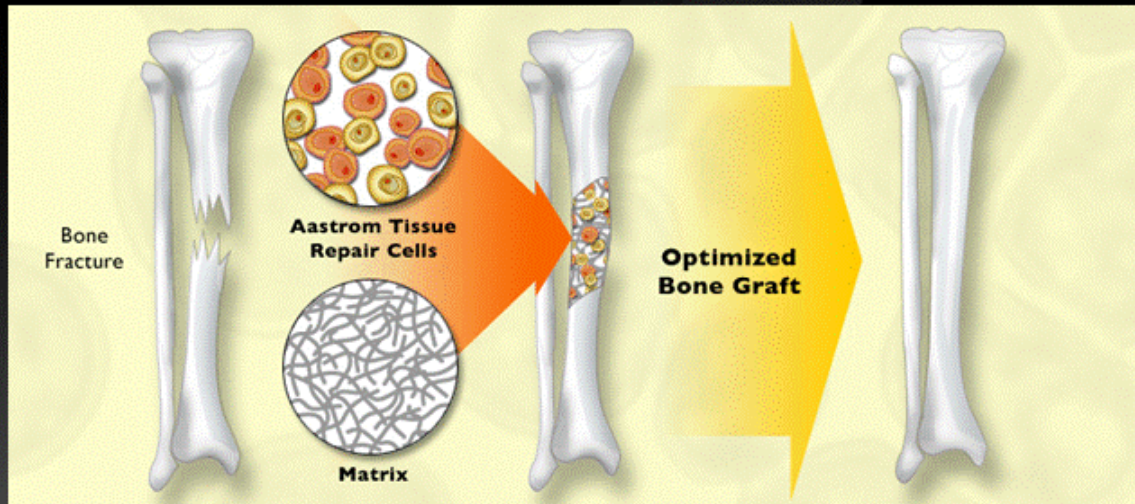
- Non-Union Fractures (failed SOC)
 - Multi-center study active in U.S. (36 patients)
 - Accrual completion targeted Q2 CY2006
 - Interim results expected Q2-3 CY2006
- Spine Fusion
 - U.S. trial (PLGF) expected to expand to multi-centers in CY2006
 - EU trial (lead center) expected Q2 CY2006
- Osteonecrosis
 - EU trial expected to expand to multi-centers following completion of lead proof of concept trial

SOC = Standard of Care
PLGF = Posterior Lateral Gutter Fusion



TRCs for Bone Grafting

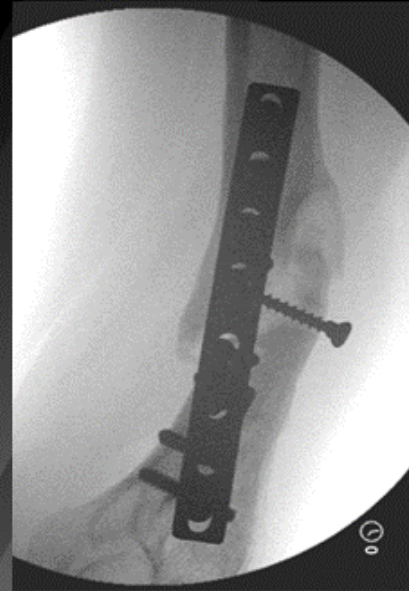
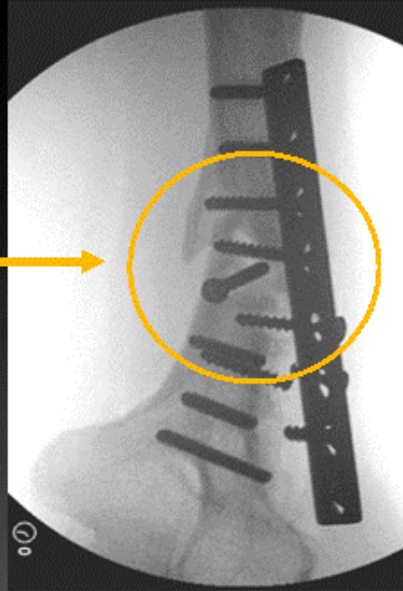
Non-Union Fracture Indication



Non-Union Fracture Trial

Candidate Patient X-Rays *

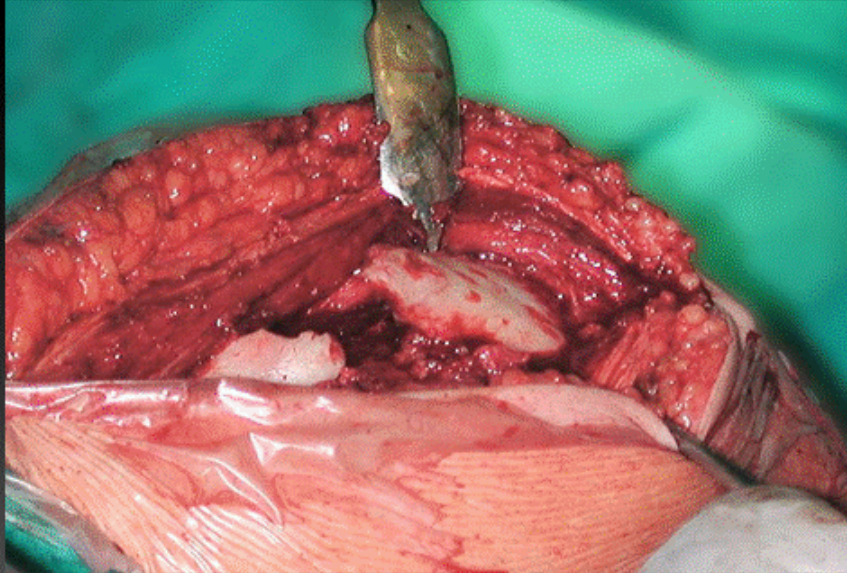
Point
of
Fracture



* Clinical Situation: Non-union fracture of humerus which failed fixation and autograft (> 8 months)

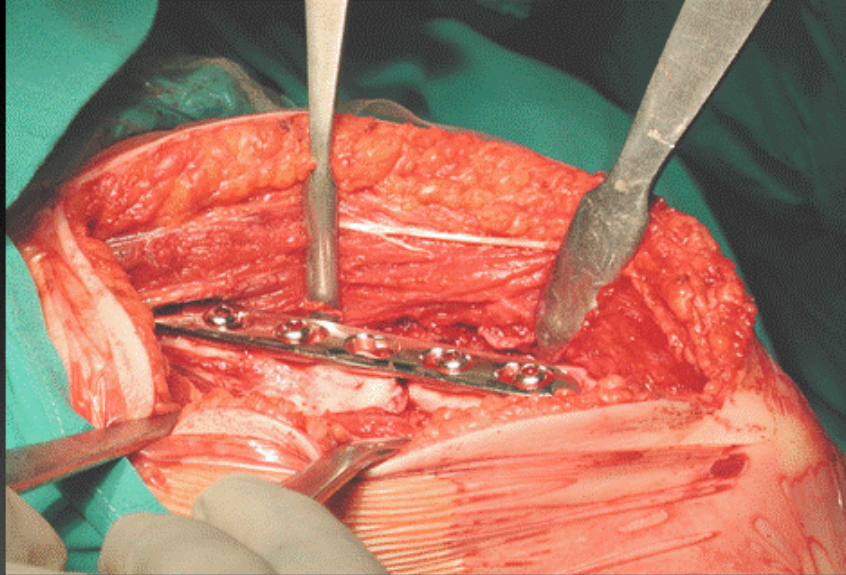
Non-Union Fracture Trial

Fracture Site with Previous Fixation Removed



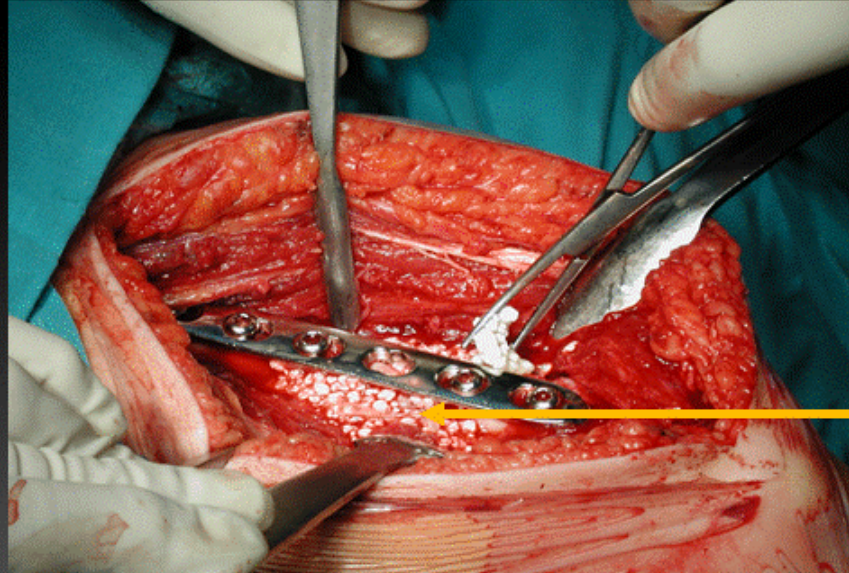
Non-Union Fracture Trial

Fracture Site with New Fixation Applied



Non-Union Fracture Trial

TRCs and Matrix Applied at Fracture Site

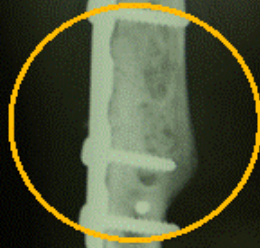


TRCs
and
Matrix

Non-Union Fracture Trial

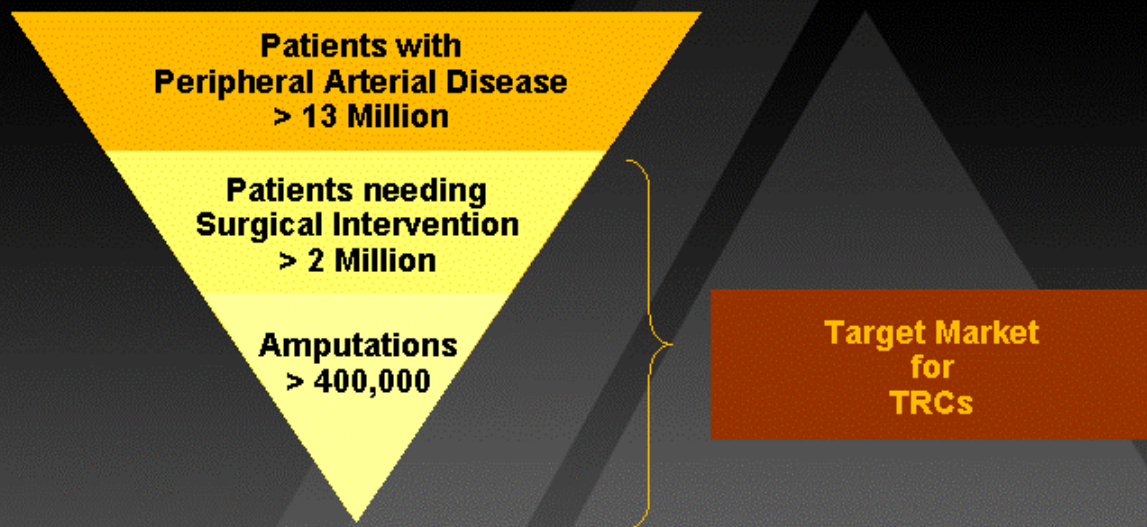
Patient Recovery (5 Months)

Fracture
Site



TRCs for Peripheral Vascular Tissue

Regeneration of Ischemic Arteries in Limbs



Sources: U.S. Census 2000; United Nations 2002 World Population Report; Weitz JI, Byrne J, Clagett P, et al. Diagnosis and Treatment of Chronic Arterial Insufficiency of the Lower Extremities: A Critical Review. *Circulation* 1996; 94: 3026-49. [U.S., EU and Japan]



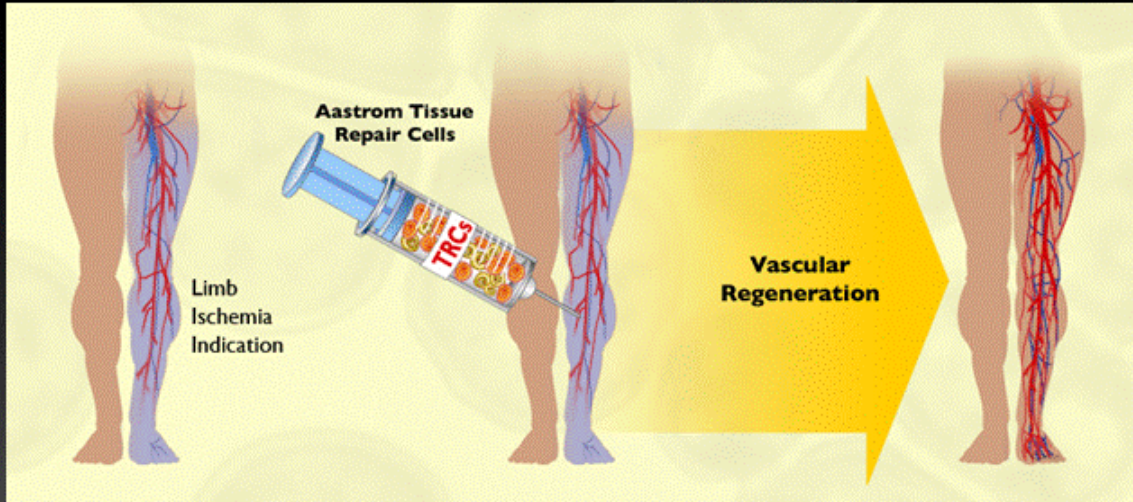
TRC Development Strategy

Peripheral Arterial Disease (Limb Ischemia Indication)

- Rationale
 - Large market opportunity with limited therapeutic competition
 - Large volume bone marrow injections showing effectiveness
- Issues
 - New treatment area
 - Prevention vs. Therapy
- Strategy
 - Controlled trials to determine effect of TRCs on ischemic vasculature
 - Expand trials to establish method of use for therapeutic benefit
 - Complete registration trial

TRCs for Vascular Tissue

Limb Ischemia Indication



Limb Ischemia

Effect of Large Volume Bone Marrow

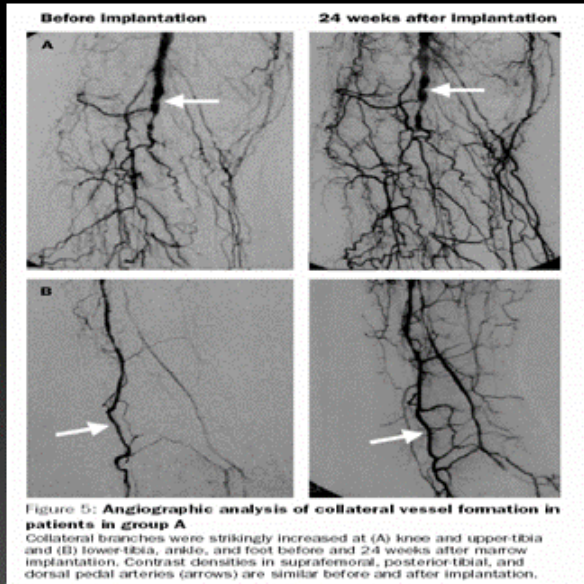


Figure 5: Angiographic analysis of collateral vessel formation in patients in group A. Collateral branches were strikingly increased at (A) knee and upper-tibia and (B) lower-tibia, ankle, and foot before and 24 weeks after marrow implantation. Contrast densities in suprafemoral, posterior-tibial, and dorsal pedal arteries (arrows) are similar before and after implantation.

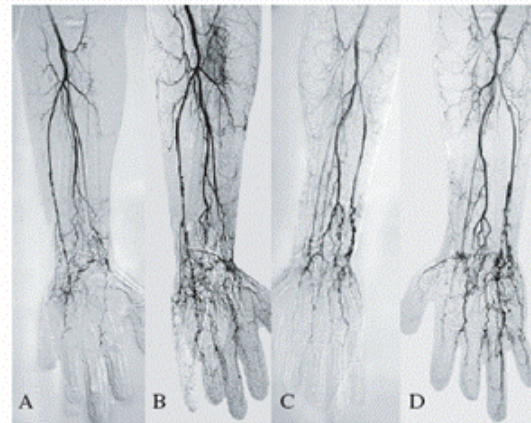


Fig. 2. Arteriography of the right hand (A, B) and the left hand (C, D). Before bone marrow transplantation (A, C). Comparison of arteriography performed with that performed on day 120 revealed the formation of new collateral vessels and the dilation of pre-existing vessels (B, D).

Sources: [Lancet 360: 427-435, 2002](#) (left panel)
[Eur J. Vasc Endovasc Surg 00, 1-3, 2002](#) (right panel)

TRC Clinical Trial – Peripheral Vascular

Pre-Pivotal / Proof of Concept

- Peripheral Arterial Disease (PAD)
 - Single-center (EU) randomized trial currently active (Q4 CY2005)
 - 25 patients with severe diabetic limb ischemia to be treated
 - 5 patients per arm of study
 - Controls are both bone marrow and standard of care
 - Intramuscular or intra-arterial routes of administration
 - Expect patient accrual to be completed in CY2006
 - U.S. site in planning

Intellectual Property

Broad Patent Coverage

- Biology and Therapeutic Use
 - Bone marrow-derived stem and progenitor cell division *ex vivo* enabled/improved under medium exchange process
 - Composition of matter of cells produced with process
 - Therapeutic use as alternative to bone marrow cells
- Device
 - Cell culture devices for radial perfusion with “decoupled” internal oxygenation
- System
 - Modular, cell culture system components for automated cell production in a sterile removable cassette
 - Electronic tracking for GMP process control

Twelve-Month Milestones

- Initiate spine fusion clinical trial in the EU
- Initiate osteonecrosis clinical trial in the EU
- Operations begin at licensed, centralized cell manufacturing facility in the EU
- Report interim patient data from multi-center U.S. fracture clinical trial
- Complete diabetic limb ischemia treatments
- Plans for registration trial for bone regeneration

Aastrom Balance Sheet Data

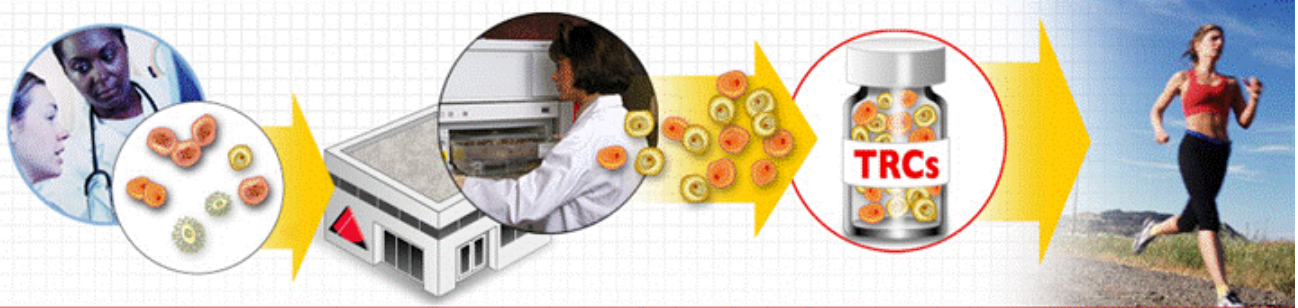
(September 30, 2005 *)

* Per Aastrom Biosciences, Inc. 1st Q FY2006 Form 10-Q, as filed with the SEC



Aastrom Opportunity

- Bone marrow stem cells have great therapeutic potential
- Compelling early clinical evidence of TRCs as an effective large volume bone marrow therapy
- Proprietary therapeutics applied to multiple indications for treatment and prevention
- Established cell production technology enables commercial manufacturing
- Value creation driven by expanding clinical program



*Capturing the Therapeutic Potential of
Bone Marrow Stem Cells*

Thank you!

(Nasdaq:ASTM)