
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):
August 25, 2005

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 potential investors and that are expected to be used in subsequent presentations to interested parties, including analysts 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 Any information in this report supercedes inconsistent or outdated information contained in earlier Regulation FD disclosures.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: August 25, 2005

AASTROM BIOSCIENCES, INC.

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



*Proprietary Cell Products for
Tissue Regeneration*

Investor Presentation
August, 2005

(Nasdaq:ASTM)

SAFE HARBOR

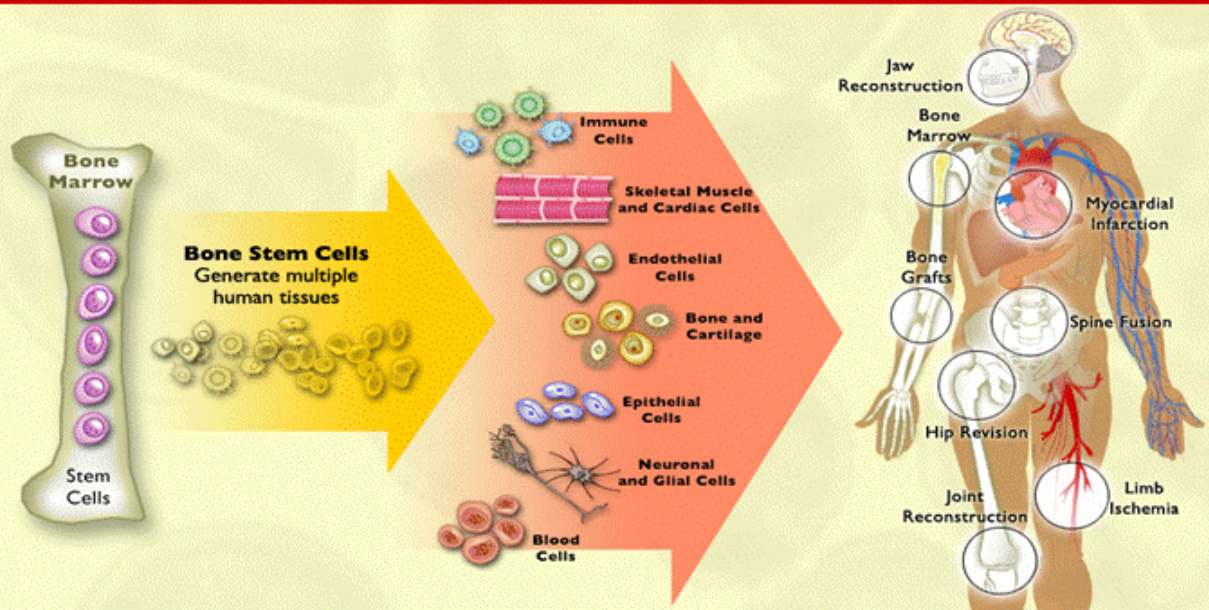
- This presentation contains forward-looking statements, including, without limitation, statements concerning product-development objectives and anticipated timing, clinical trial timing and expected results, potential market opportunities and revenue models, market development plans, anticipated key 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.
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Summary

- Emerging as a leading tissue regeneration company
- Proprietary bone marrow stem cell products: *Tissue Repair Cells*
- Business model based on clinical experience and ability to apply TRCs to multiple markets
- In clinic with multiple Phase II-level trials for bone grafting
- New Phase II-level trial for diabetic limb ischemia to begin 2005
- Multiple clinical milestones expected over next 18 months
- Good financial position

Capturing the Therapeutic Potential of Bone Marrow Stem Cells

Regenerate tissues with stem cells grown from bone marrow collected from the patient...



Tissue Repair Cells: *Bone Marrow Plus*

Small aspirate
collected from patient

Cells go to
production lab

TRCs produced in
AastromReplicell System

TRCs generate
healthy tissues



Office
procedure

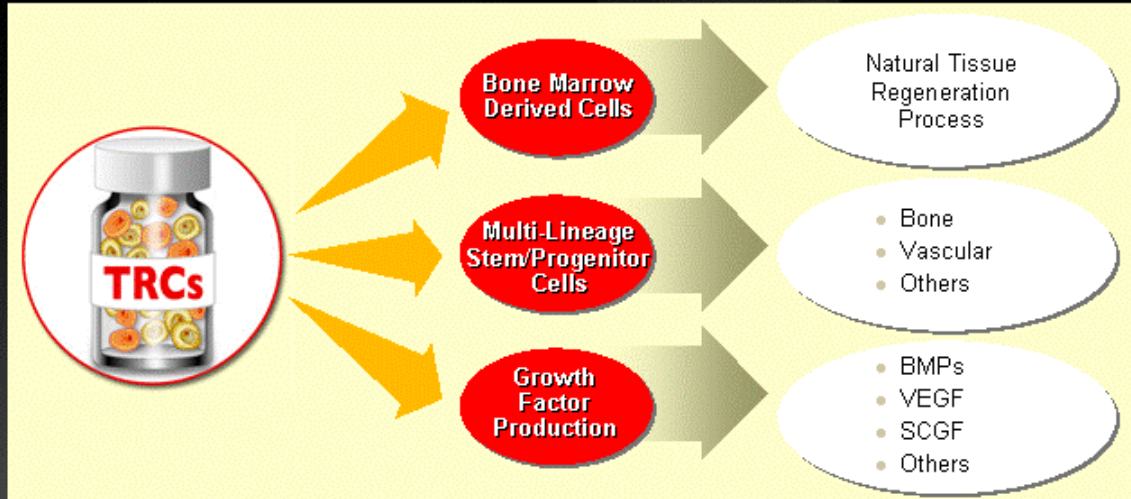
Centralized facility

Proprietary
technology

> 180 patients
treated to date

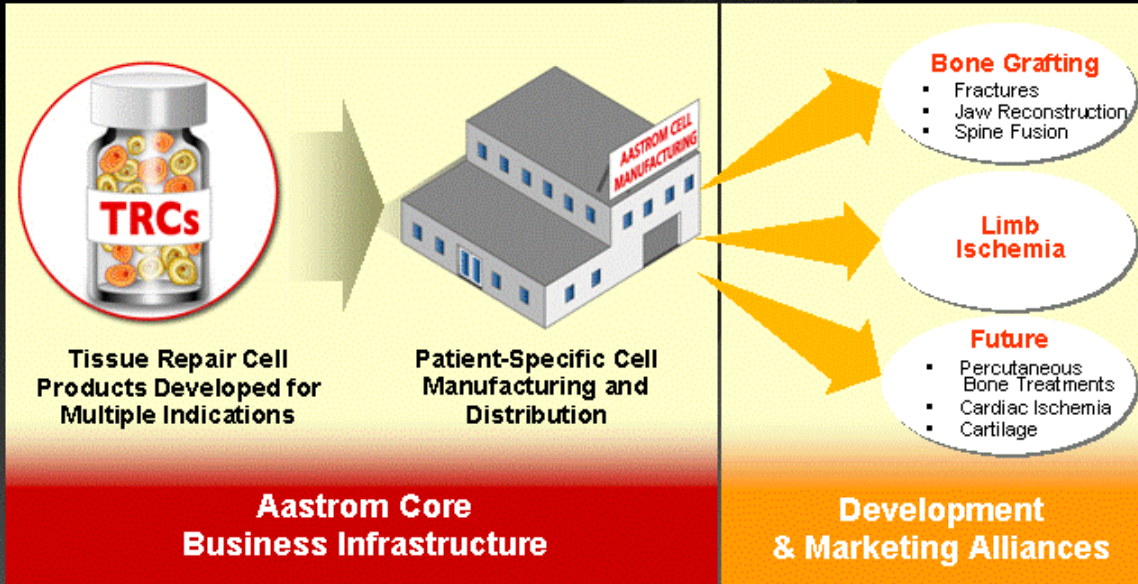
Aastrom Tissue Repair Cell Product

New Capability in Tissue Regeneration



Aastrom's Business Model

Transforming Cells into Products



Development Pipeline

| | Research | Preclinical | Clinical | Market | Comments |
|--|----------|-------------|------------------|--------|-----------------------------------|
| Bone Grafting | | | | | |
| Long bone fractures | | | | | |
| U.S. | | | Phase III | | Trial enrolling at 5 sites |
| Europe | | | Proof of Concept | | Positive results reported |
| Jaw reconstruction - Europe <small>(Silastic III for dental implants)</small> | | | Proof of Concept | | Results expected in CY2005 |
| Spine fusions | | | | | IND submitted to FDA |
| Vascular Tissue | | | | | |
| Peripheral limb ischemia | | | Phase III | | Accruing patients in 3Q CY2005 |
| Cardiac ischemia | | | | | Successful animal model completed |
| Cartilage | | | | | |
| Joint reconstruction | | | | | Cartilage from TRCs established |

TRCs in Bone Grafting

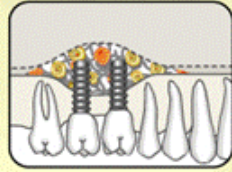
Clinical Strategy

- Complete Phase I/II trials to establish ability of TRCs to induce bone growth in three bone types (long bone, spine, facial)
- Select indication to continue Phase III level trials for market registration (FDA in US; EMEA in EU)
- Explore additional trials to expand market potential and labeling

Potential for TRCs in Bone Grafting



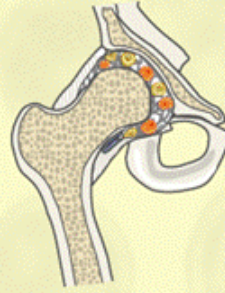
Bone Fracture



Sinus Lift Indication



Spine Fusion Indication



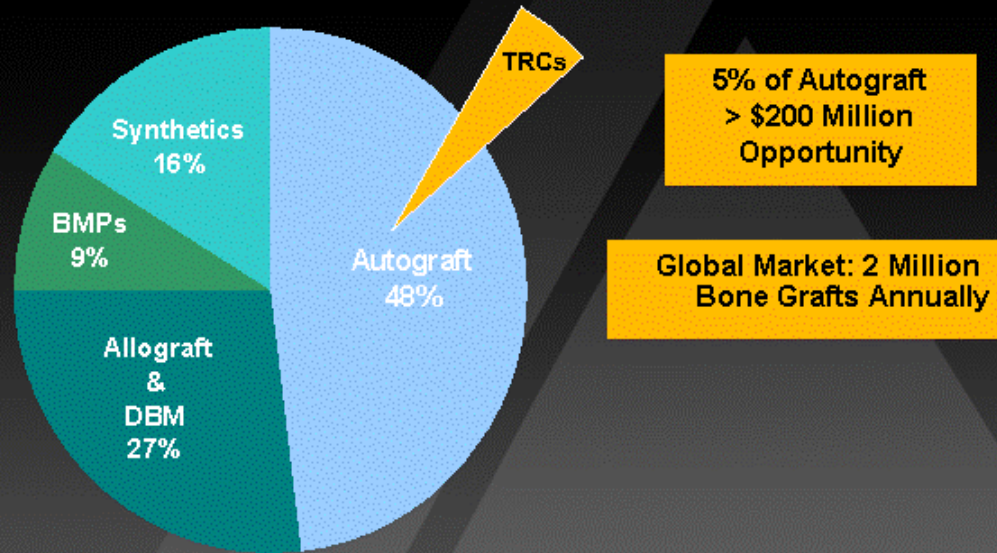
Hip Revision Indication



Bone Tumor/Cyst Indication

Bone Graft Market Opportunity

Target the Autograft Segment for Severe Indications

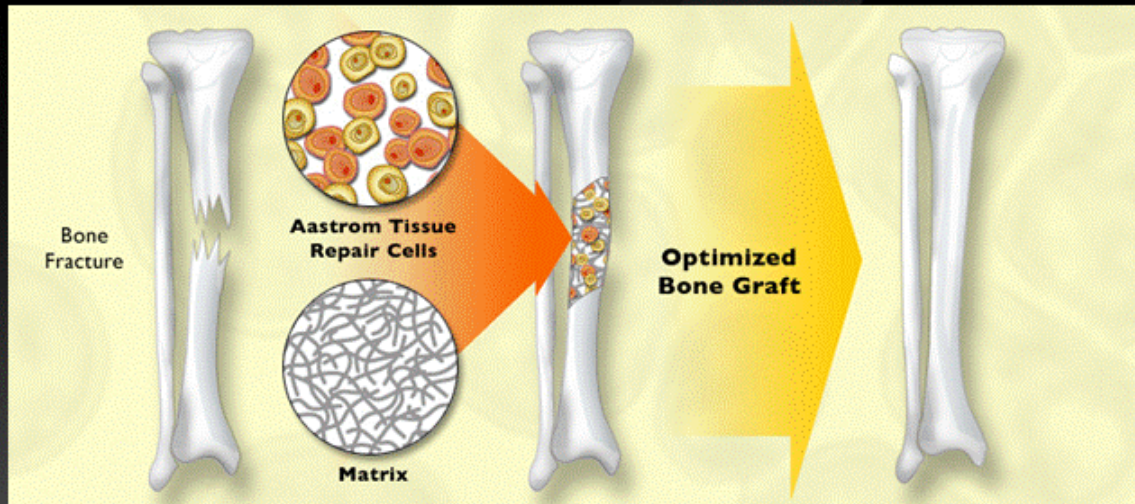


Source: Millennium Research Group CY2009 projections (U.S., Europe and Japan)
BMP = Bone Morphogenic Proteins
DBM = Demineralized Bone Matrix



TRCs for Bone Grafting

Bone Fracture Indications



Bone Graft Clinical Plan

Bone Fracture Indications

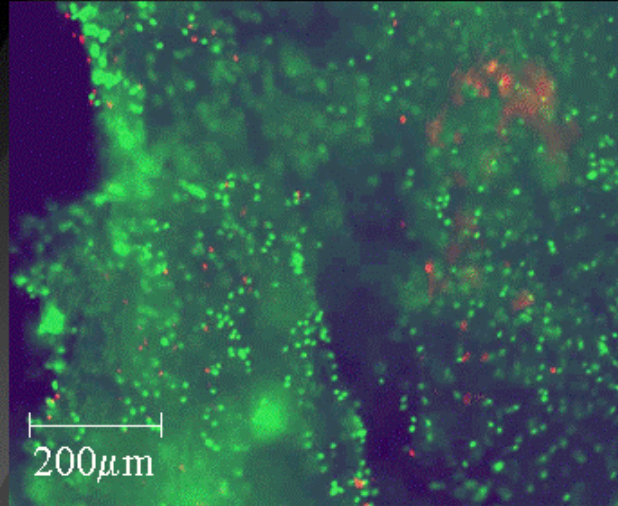
- EU
 - Lead proof of concept study initiated in Spain in 2Q CY2004
 - Long term non-union fractures (failed standard treatment)
 - First phase (6 treatments) completed; positive trial results reported May 2005
 - Process underway to expand trial
- United States
 - Phase I/II multi-center trial; IND approved by FDA
 - Safety milestone achieved; allowed to expand to fresh as well as long term non-union fractures
 - Five sites now active; 20 patient target
 - Targeted accrual/treatment completion in 4Q CY2005

TRCs and Matrix

Combining TRCs and Matrix



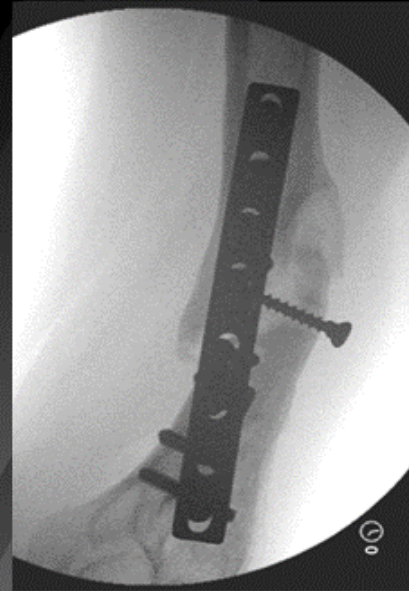
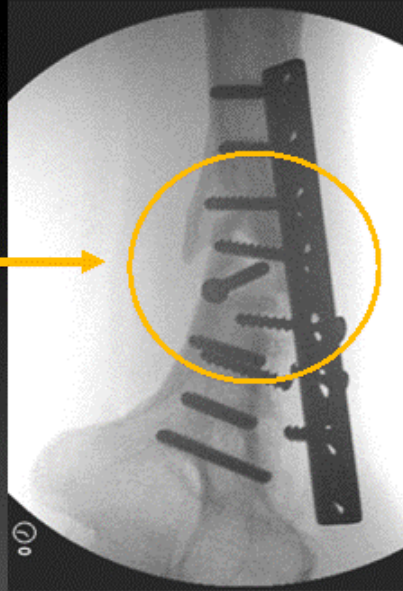
Micrograph of TRCs in Matrix



Non-Union Fracture Trial

Candidate Patient X-Rays *

Point
of
Fracture

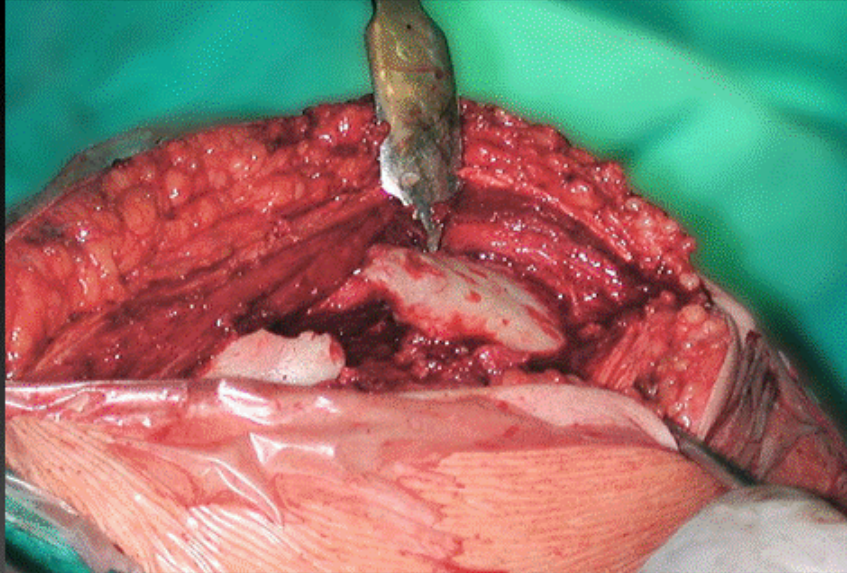


* Clinical Situation: Non-union fracture of humerus which failed fixation and autograft (> 8 months)



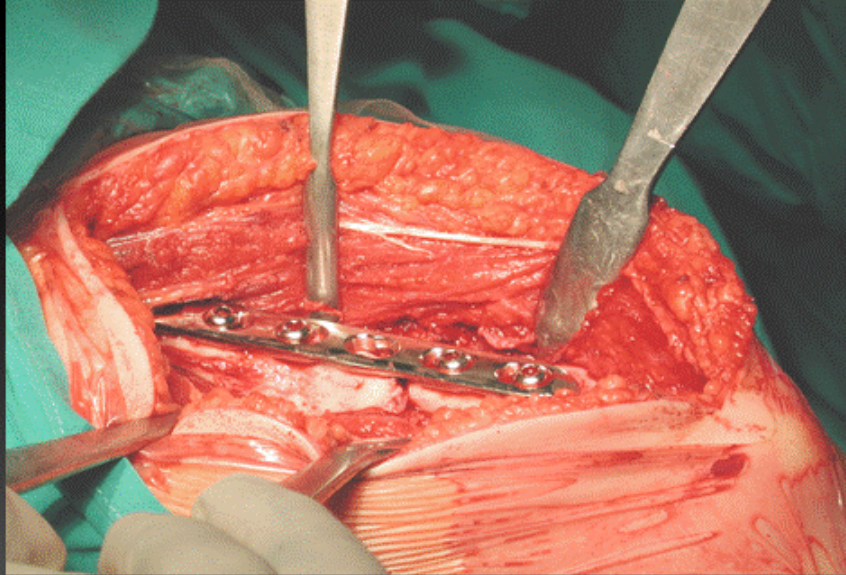
Non-Union Fracture Trial

Fracture Site with Previous Fixation Removed



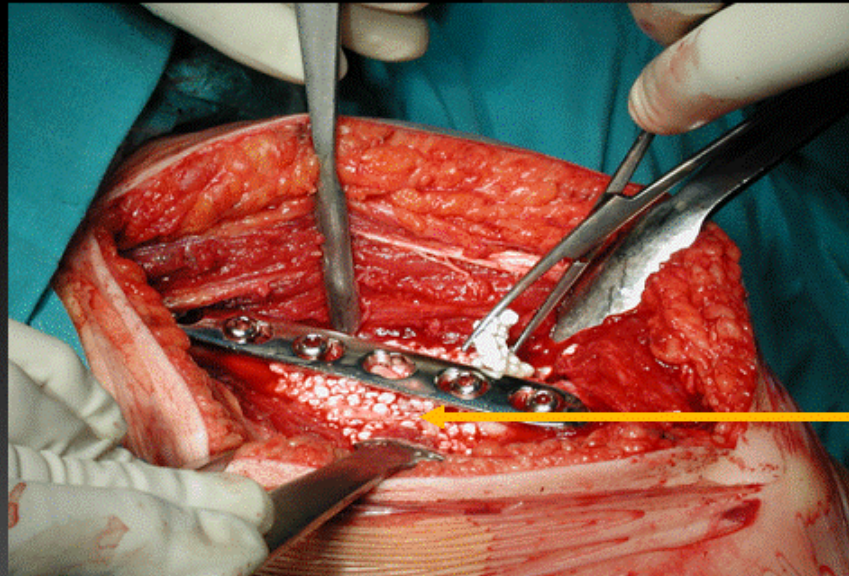
Non-Union Fracture Trial

Fracture Site with New Fixation Applied



Non-Union Fracture Trial

TRCs and Matrix Applied at Fracture Site



TRCs
and
Matrix

Non-Union Fracture Trial

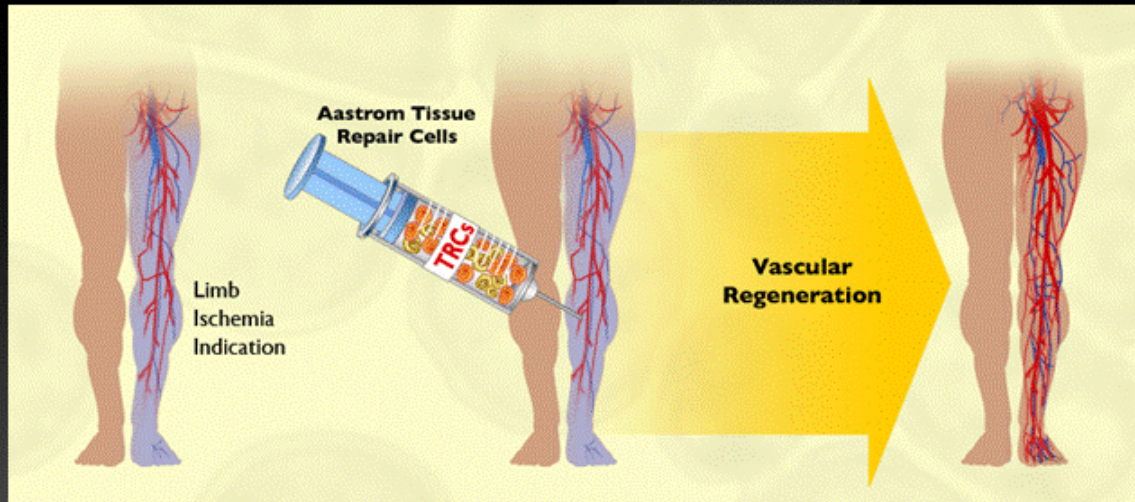
Patient Recovery (5 Months)

Fracture
Site



TRCs for Vascular Tissue

Limb Ischemia Indication



Limb Ischemia (Veins and Arteries)

Rationale for TRC Development

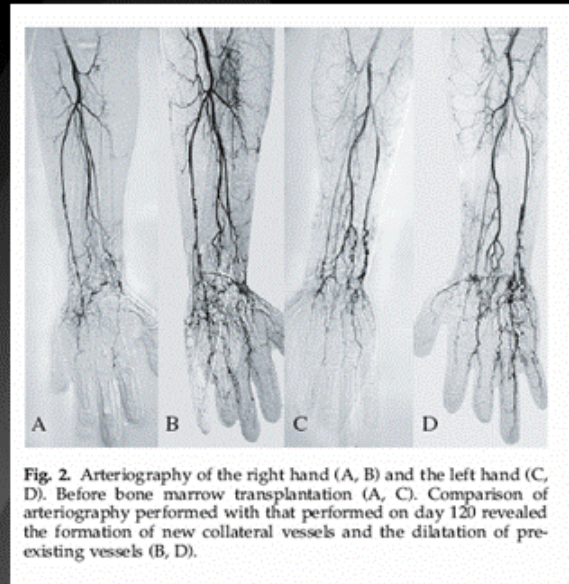
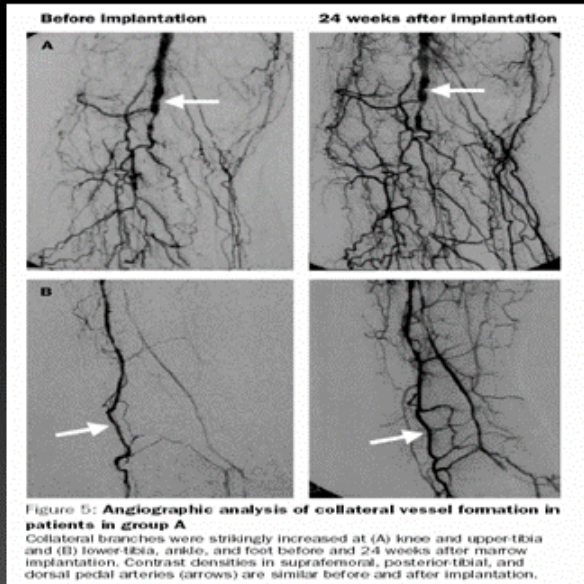
- Large market opportunity, with limited therapeutic competition
 - Diabetic and Buerger's disease patients
 - Targeted 1+ million patients in need of surgery for severe limb ischemia
 - Reimbursement levels are high for interventional treatments
- Published clinical results suggest effectiveness of large volume bone marrow for limb ischemia
 - Similar reports for cardiac ischemia
- TRCs ready to go to trial
 - TRCs shown as effective substitute for large volume bone marrow in BMT indication (Aastrom trials)
 - TRC's vascular lineage capability demonstrated *in vitro*
 - Leverage existing infrastructure established for bone grafting

Source: Millennium Research Group CY2009 projections (U.S., Europe and Japan)
BMT = Bone Marrow Transplantation



Limb Ischemia

Effect of Large Volume Bone Marrow



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

Vascular Tissue Clinical Plan

Limb Ischemia Indication

- Lead Trial (Phase II Level)
 - Clinical trial agreement with HDZ in Bad Oeynhausen, Germany
 - Cell manufacturing license process obtained and patient accrual to begin in CY2005
- Trial Objectives
 - Evaluate TRCs vs Bone Marrow vs Standard of Care to increase vascularization and aid in various standard vascular endpoints
 - Endpoints: Improved ulcer healing, limb mobility, limb salvage, pain, ABI, plus other secondary evaluations
 - Evaluate local IM injection and IA infusion routes
 - Complete 25 patients, evaluate data for protocol modifications, and expand with selected criteria as a randomized trial

ABI = Ankle-Brachial Index
IM = Intramuscular
IA = Intraarterial



Partnering

- 2003 alliance with



- Largest provider of allograft tissue matrix (>\$250 million revenue)
 - Companies both contribute to development and clinical expenses for products that combine TRCs and MTF matrix
 - Companies sell their own products and coordinate marketing
- Targeting other relationship(s) for synthetic matrix
 - Targeting other marketing partners for each indication
 - Fracture; Jaw; Spine; Vascular

Aastrom Balance Sheet Data

(March 31, 2005 *)

- Cash and Investments \$ 35,400,000
- Total Assets \$ 37,000,000
- Shareholders' Equity \$ 36,200,000
- Average Cash Usage Per Month \$ 1,000,000

* Per Aastrom Biosciences, Inc. Form 10-Q for quarter ended March 31, 2005





*Proprietary Cell Products for
Tissue Regeneration*

(Nasdaq:ASTM)