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Enhancing lives through novel cell therapies

Cytori Therapeutics

Corporate Update | May 2016

NASDAQ: CYTX

Forward Looking Statements and Disclaimers

This presentation contains certain 'forward-looking statements' about Cytori Therapeutics, Inc. All statements, other than statements of historical fact, that address activities, events or developments that we intend, expect, project, believe or anticipate will or may occur in the future are forward-looking statements. Such statements are based upon certain assumptions and assessments made by our management in light of their experience and their perception of historical trends, current conditions, expected future developments and other factors they believe to be appropriate.

The forward-looking statements included in this presentation, involve known and unknown risks that relate to future events or our future financial performance and the actual results could differ materially from those discussed in this presentation. Some of those forward-looking statements include: our commercialized and pipeline products and technologies; the timing and conduct of our clinical trials, and the associated financial, clinical and regulatory burdens; other parties' abilities to conduct clinical trials involving Cytori Cell Therapy; the various medical indications and markets that may be addressed by Cytori Cell Therapy; the potential effectiveness of Cytori Cell Therapy, including clinical outcomes; our regulatory, reimbursement and commercial strategies and pathways; potential costs and other adverse effects of diseases targeted for treatment by our products, including the celution system, and; anticipated future funding and contract revenues. Some risks and uncertainties related to such forward looking statements include risks and uncertainties regarding the funding, conduct and completion of our clinical trials and other parties' clinical trials involving Cytori Cell therapy, uncertain clinical outcomes, regulatory uncertainties, unfavorable reimbursement outcomes, inability to access sufficient capital on acceptable terms (including inability to fund, or find third party sources to fund, our proposed clinical trials or continued development of our technologies), failure to maintain our substantially reduced cash burn; our partners' failure to launch products in China and other markets where we currently forecast sales; our abilities to service, pay and/or refinance our corporate debt; availability of future government funding and changes in government procurement priorities; the U.S. federal government's ability to reduce, modify or terminate the BARDA contract if it determines it is in its best interests to do so, potential performance issues with our products and technologies, and other risks and uncertainties described under the "Risk Factors" section in our Securities and Exchange Commission Filings on Form 10-K and Form 10-Q. These risks and uncertainties may cause our actual results to differ materially from those discussed in this presentation. We advise reading our most recent annual report on Form 10-K and quarterly report on Form 10-Q filed with the United States Securities and Exchange Commission for a more detailed description of these risks.

The forward-looking statements contained in this presentation represent our estimates and assumptions only as of the date of this presentation and we undertake no duty or obligation to update or revise publicly any forward-looking statements contained in this presentation as a result of new information, future events or changes in our expectations.

Disclaimers

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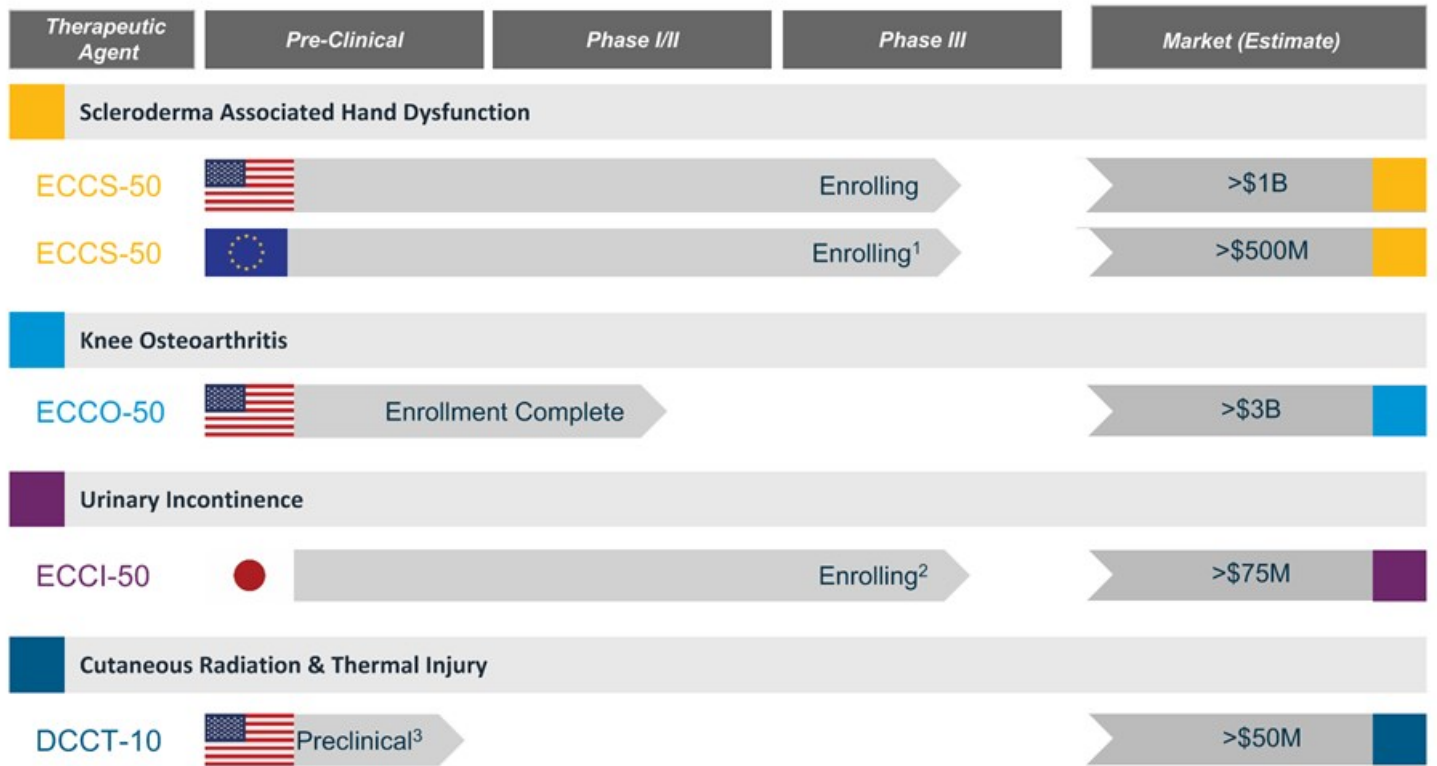
Free Writing Prospectus Statement

- This presentation highlights basic information about us and the offering. Being a summary document, this slide deck does not contain all the information that you should consider before investing.
- We have filed a registration statement (including a preliminary prospectus) with the SEC for the offering to which this presentation relates. The registration statement has not yet become effective. Before you invest, you should read the preliminary prospectus in the registration statement (including the risk factors described therein) and other documents, including the Company's Form 10-Ks and Form 10-Q, that we have filed with the SEC for more complete information about us and the offering.
- You may get these documents for free by visiting the "Search EDGAR" section on the SEC web site at <http://www.sec.gov>. The preliminary prospectus, dated May 11, 2016, is available on the SEC website. Alternatively, we or the dealer-manager for this offering, Maxim Group LLC will arrange to send you a preliminary prospectus if you contact Maxim Group LLC, Prospectus Department, 405 Lexington Ave., New York, NY, 10174; Telephone: (212)-895-3745; Email: syndicate@maximgrp.com.

Cytori Overview

- Cell therapy technology with viable commercial model
- Multiple programs in phase III
- Lead Indication- Scleroderma therapy EU introduction 2016 via early access program, anticipated US phase III data in 2H 2017 with goal for FDA approval in 2018
- Product & contract revenue growth- increasingly off-setting burn
- Completed substantial corporate repositioning

Cytori Cell Therapy: Clinical Pipeline



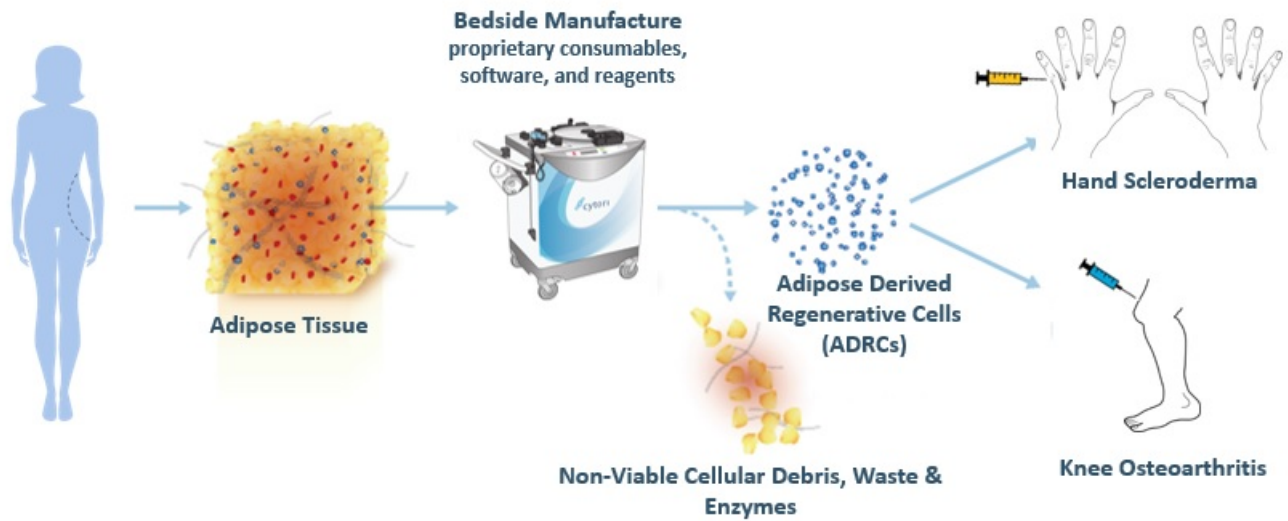
¹ Cytori-supported, Investigator-initiated trial

² Japan Govt Sponsorship

³ Funded by BARDA (US Govt.)

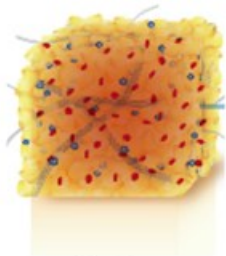
Cytori 3-Step Bedside Process

PROCESS	1 HARVEST Small Volume Liposuction (100-360 mL)	2 PROCESS Celution® System Tissue Processing, Cell Isolation & Dose Preparation	3 DELIVER Cytori® Cell Therapy™ Delivery
TIME	≤ 30 Min	≤ 120 Min	5 - 30 Min

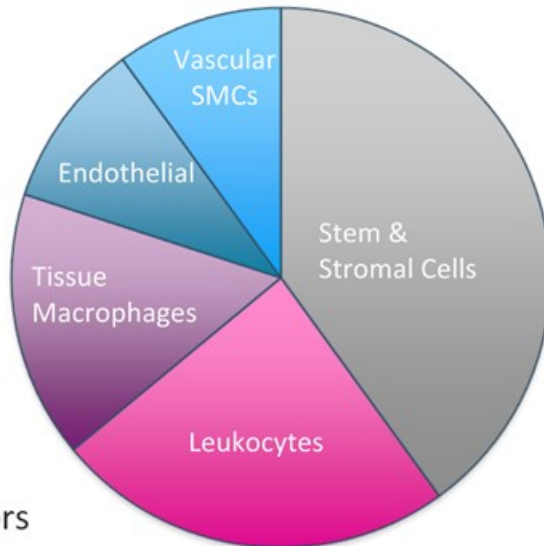


Cytori Cell Therapy: Why Adipose?

Adipose-derived regenerative cells- Clinical grade, heterogeneous cell population highly-enriched for adipose-derived stem, stromal, vascular, and immunoregulatory cell types



- Metabolic reservoir
- High baseline angiogenic potential
- Immune organ
- Stem cells & progenitors

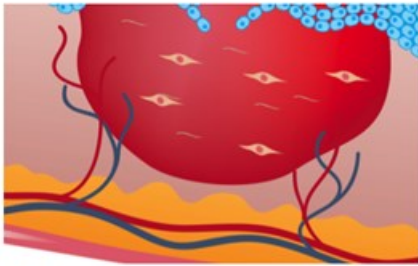


- Cells sourced from **autologous** adipose tissue
- **Heterogeneous and uncultured-** ADRC potency advantage
- Cell therapeutic manufactured in **bedside GMP process**

Cytori Cell Therapy: Mechanism of Action

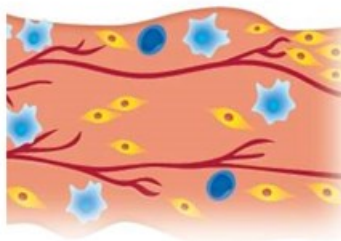
Cytori Cell Therapy is being developed with the goal of beneficially modulating multiple key pathologic processes which are anticipated to reduce pain and disability and improve quality of life

Angiogenesis/Vasculopathy



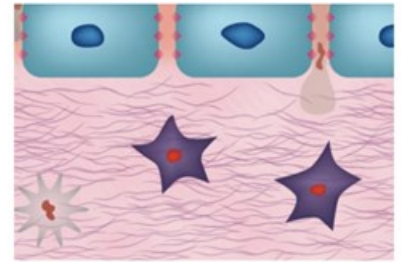
- Promotes angiogenesis
- Normalization of vessel architecture
- Improved vasomotor function¹⁻⁵

Inflammation



- Modulates expression of pro- and anti-inflammatory factors
- Modulates the function of pro- and anti-inflammatory cells^{3, 6-9,}

Fibrosis/Wound Remodeling



- Reduces development of fibrosis
- Remodels existing fibrosis^{2,10,11}

1. Foubert et al (2015); 2. Koh et al (2011); 3. Premaratne (2011); 4. Morris et al (2015); 5. Eguchi et al (2015); 6. Feng et al (2010); 7. Hao et al (2014); 8. Dong et al (2013); 9. Data on file (Cytori); 10. Serratrice et al (2014); 11. Data on file (Cytori)

Lead Indication: Scleroderma

Scleroderma

Scleroderma or Systemic Sclerosis

- Rare autoimmune condition
- Affects Women: Men, 4:1
- US Prevalence: 50,000 patients
- >90% of patients have hand disability
 - Fibrosis, pain, and edema result in diminished mobility and hand function even with standard medical care
 - Severe vasomotor symptoms



Raynaud's
Phenomenon



Ulceration
and Edema

Pathophysiology

Endothelial
Dysfunction

Vascular
Damage

Chronic
Inflammation

Fibrosis

Diminished
Hand Function

Ulcers &
Amputation

Cytori Cell Therapy

Preclinical and in vitro studies report modulation of perivascular inflammation, improved endothelial function, and reduction of extracellular matrix (fibrosis)

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Image on left by D Niklas, <https://commons.wikimedia.org/wiki/File:Raynaud-Syndrom.JPG> used under CC license
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Scleroderma: Market Overview

Current Standard of Care

- No therapies approved for treatment of hand dysfunction in scleroderma patients
- Existing 1st and 2nd line treatments for treatment of Raynaud's Phenomenon or other aspects of scleroderma are often inadequate and/or poorly tolerated
- Existing 3rd line treatments are costly (\$30-\$100k) and often very poorly tolerated

Diagnosis

- Average age: 30's-50's

1st/2nd Line Therapies

Inadequately effective and/or poorly tolerated in ~50% of patients^{1,2}

- Calcium channel blockers (eg: nifedipine)
- PDE5 inhibitors (eg: sildenafil)
- Topical nitrates

- Side effects: headache, dizziness, flushing, tachycardia, and edema

3rd Line Therapies

Expensive, often poorly-tolerated; doses titrated to tolerance rather than to symptom relief

- Endothelin-1 receptor antagonist (eg: Bosentan)
- Intravenous (IV) prostaglandin (PG) analog (eg: Iloprost)
- Pain due to severe ischemia may require the use of analgesics
- Immunosuppressive agents (eg: methotrexate, cyclophosphamide, azathioprine, mycophenolate)
- Surgical sympathectomy

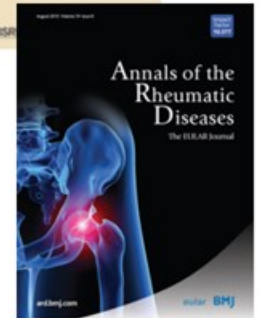
Scleroderma: Treatment Approach

- Ambulatory
- Procedure room
- Local or mild conscious sedation
- Single administration ECCS-50
- 0.5cc injection to each side of each finger



Pilot/Phase I SCLERADEC I Trial

	SCLERADEC I
Study size	12
Randomization	Open label
Administration	Single administration (~4m cells/finger)
Sites	Single site (IIS) - Marseille, France
Endpoints	<ul style="list-style-type: none">• Cochin Hand Function Scale• Raynaud's Condition Score• Scleroderma Health Assessment Questionnaire• Pain• Modified Rodnan Skin Score• Capillaroscopy• Adverse events• Other
Follow-Up	24 months
Status	Complete

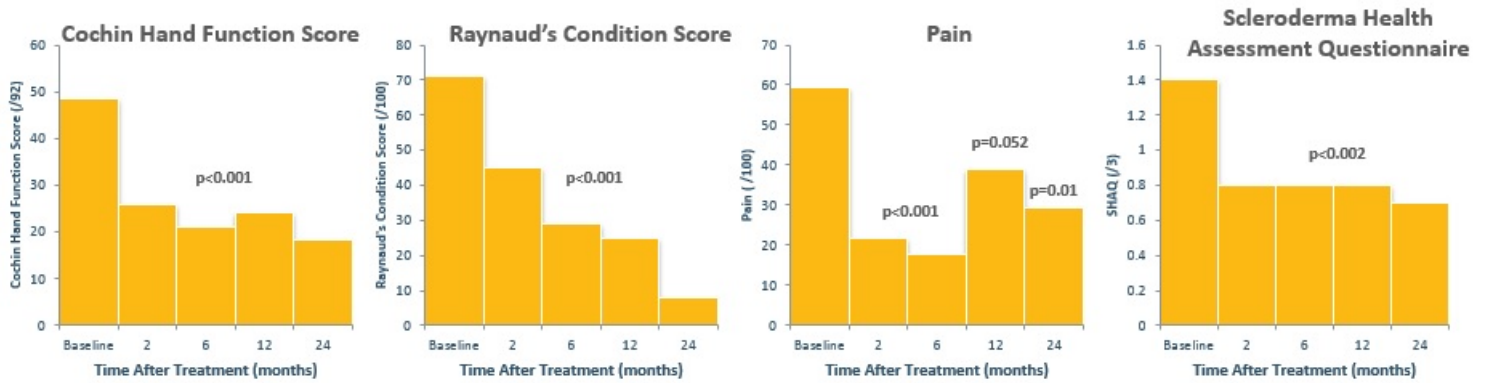


- Six and 12 month data published^{1,2}
- 24 month data presented at Systemic Sclerosis World Congress in Lisbon, Portugal, February 19, 2016

1. Granel et al (2014); Ann Rheum Dis Aug 11; doi: 10.1136/annrheumdis-2014-205681
2. Guillaume-Jugnot et al (2015) Rheumatol. 10.1093/rheumatology/kev323

SCLERADEC | Improvement Through 24 months

ECCS-50 Treatment led to improvement in hand function, Raynaud's phenomenon, and pain



Key Observation:

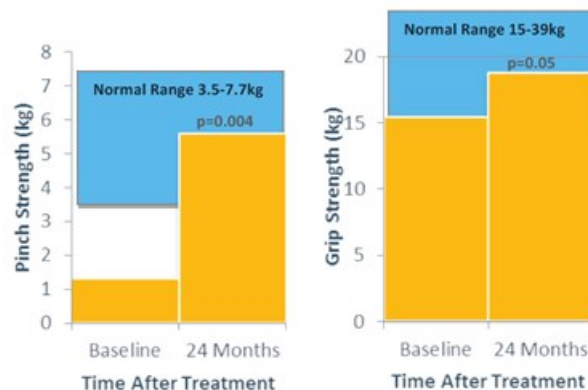
- Concordant reduction (~50%) in four key symptomatic patient reported outcomes
- Efficacy sustained to two years following a single treatment

SCLERADEC I- Other Endpoints

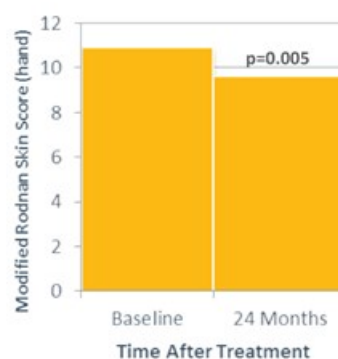
Sustained improvement in hand strength & skin stiffness



330% improvement in pinch strength
20% improvement in grip strength



12% improvement in mRSS of the hand

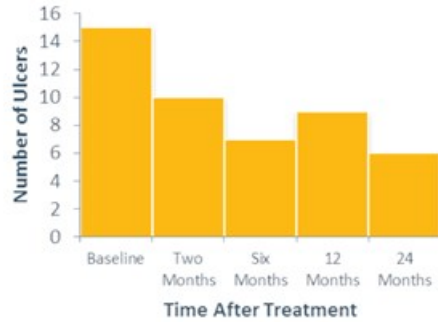


SCLERADEC I- Other Endpoints

Reduction in digital ulcers, improved microvascular architecture



40% improvement in number of ulcers



30-35% improvement in vascular suppression score

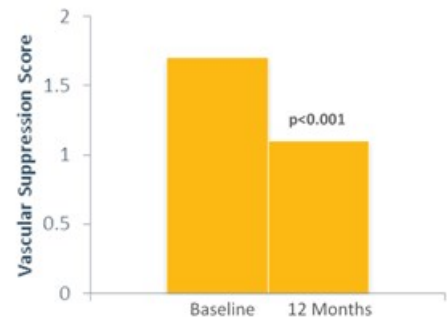




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VSS data at 24 months not available

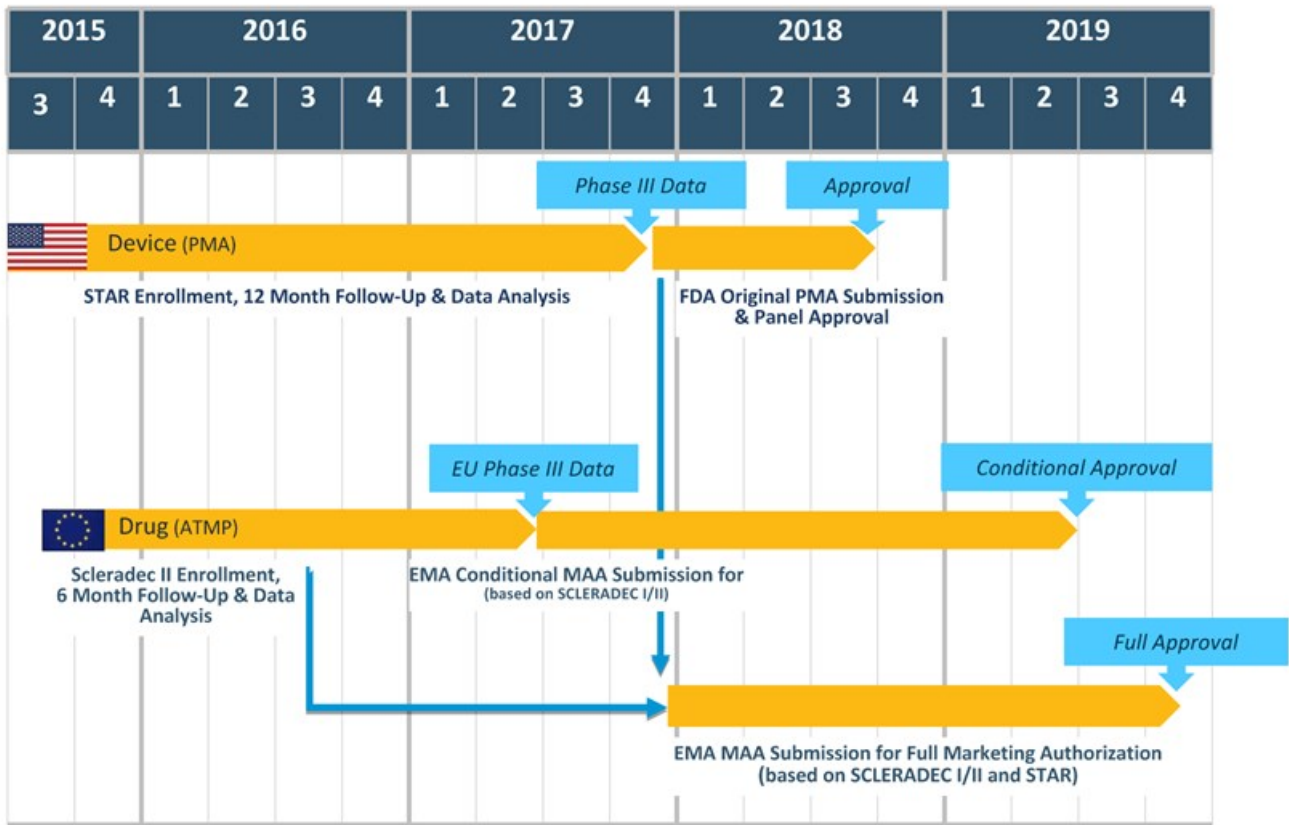
Scleroderma: Ongoing Clinical Trials

Clinical/Regulatory Strategy

- EU SCLERADEC I trial data used to support US FDA STAR trial approval
- US FDA STAR trial for US PMA approval
- US STAR trial ± SCLERADEC II to obtain EU Conditional Marketing Authorization/Normal Marketing Authorization

	STAR (Phase III) 	SCLERADEC II (Phase III) 
Study size	80	40
Randomization	1:1, active: placebo	1:1 (dose from Pilot, placebo)
Crossover	Placebo, crossover at 48 weeks	Placebo, crossover at 24 weeks (cryo)
Sites	Up to 20 in USA	6 France
Primary Endpoint	Cochin Hand Function Score (CHFS) at 6 months	Cochin Hand Function Score at 3 months
Secondary Endpoints	CHFS, Raynaud's Condition Score, Scleroderma Health Assessment Questionnaire, Pain, Modified Rodnan Skin Score, Hand Mobility in Scleroderma Test, Adverse events	CHFS, Raynaud's Condition Score, Scleroderma Health Assessment Questionnaire, Pain, Modified Rodnan Skin Score, Capillaroscopy, Adverse events
Follow-Up	48 weeks	24 weeks
Status	Enrolling	Enrolling

Scleroderma - Projected Development Timeline

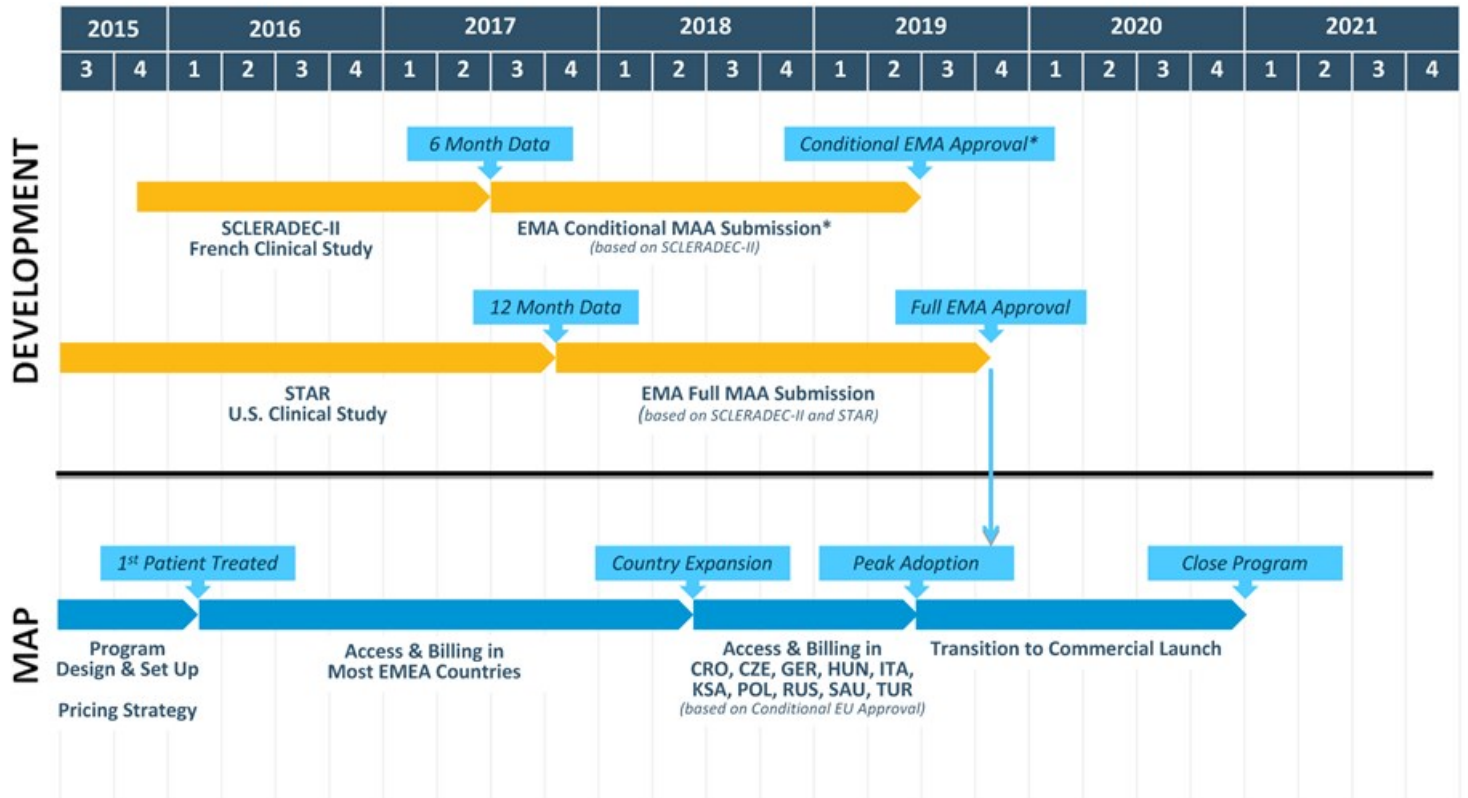




- 1 **Provide ethical and compliant access** to Cytori Cell Therapy™, ECCS-50, for hand scleroderma patients prior to EMA marketing authorization
- 2 **Increase awareness of and facilitate a positive experience** with Cytori Cell Therapy™ among healthcare providers in advance of commercial launch
- 3 **Track and collect key program data and documentation** providing valuable insight regarding the demand for and use of Cytori Cell Therapy™
- 4 **Implement a chargeable program** in EMEA countries where regulations allow
- 5 **Launch the program in Q1 and begin treating patients in Y1** and close the program once reimbursement is attained in each EMEA country



Scleroderma Managed Access Program Timeline



* Earlier receipt of Conditional Marketing Authorization is possible if the EMA is willing to approve on the basis of SCLERADEC I data in the knowledge that SCLERADEC II and STAR data will be provided shortly thereafter

Pipeline Indications

Knee Osteoarthritis

Urinary Incontinence

Radiation/Nuclear Burn

Knee Osteoarthritis

Osteoarthritis

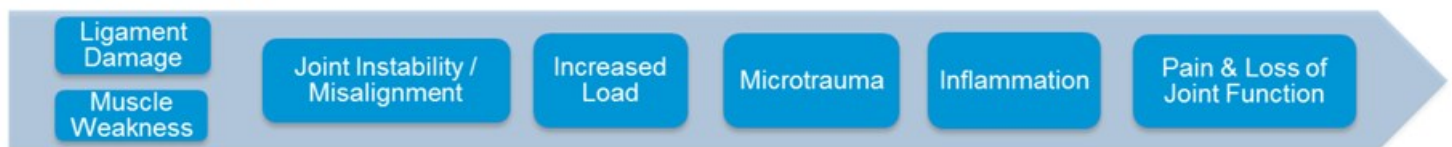
Progressive loss of joint function
Imbalance between anabolic
(cartilage-forming) and catabolic
(cartilage-destroying) processes
driven by synovial inflammation

Epidemiology

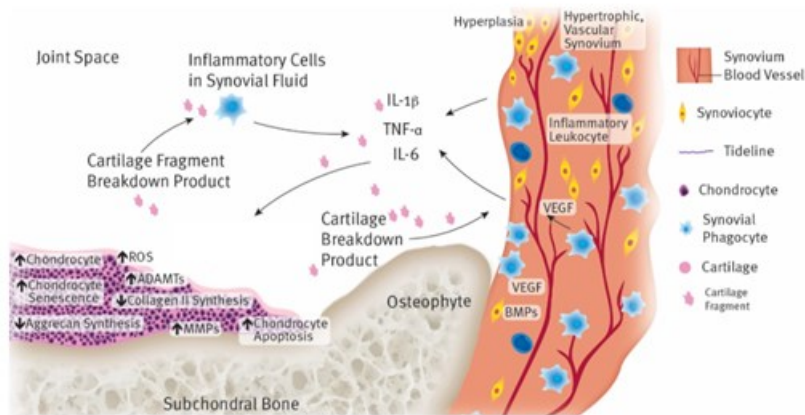
OA is the most common form of
arthritis

- 13.9% of adults ≥ 25 years
- 33.6% (12.4 million) ≥ 65 years
- Estimated 26.9 million US adults (2005)

Pathophysiology



Scientific Rationale: Cytori Cell Therapy in OA



- Pathophysiology of OA (persistent synovial inflammation leading to cartilage destruction) overlaps with other clinical indications in which Cytori Cell Therapy shown to have impact
- Combination of veterinary, preclinical, *in vitro*, and pilot clinical data indicate significant potential for symptomatic improvement and perhaps disease modification

Opportunity: Biologic/Cell Therapy to better address gap between oral analgesics and surgical management

ACT-OA Trial & Top-line 24 Week Interim Analysis

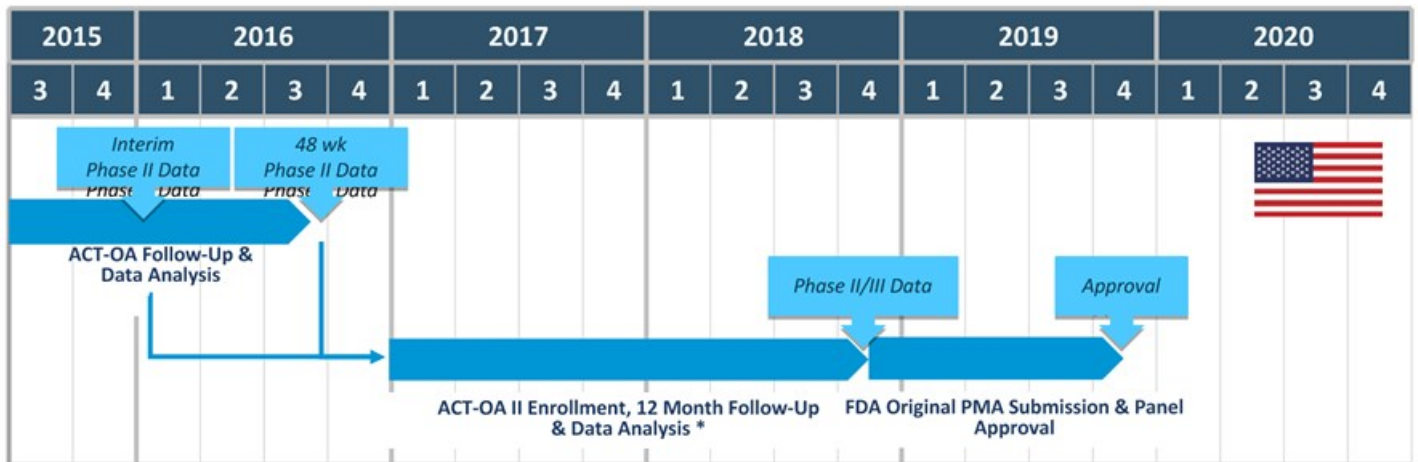
	Phase II (ACT-OA)
Study Size	94 enrolled
Randomization	1:1:1 (low dose, high dose, placebo)
Sites	12 US
Primary Endpoint	KOOS - pain on walking @ 12 weeks
Secondary Endpoints	KOOS, pain/function questionnaires, disease activity pain meds, SF-36, MRI@ 48 weeks
Follow-Up	48 weeks
Status	Enrolled- 48 week data Q3/16

24 Week Interim Data- Top-line Results From Partial Unblinding

- Patient allocation equal
- No safety concerns
- Pain on walking endpoint @12 weeks- not statistically significant
- Consistent 12, 24 week trends favoring cell therapy effect
- Strong placebo response ~50% in certain endpoints
- Cell therapy benefit over and above placebo effect

Osteoarthritis Development: Anticipated Next Steps

- Full un-blinding & complete analysis after 48 week data collected (~ Q3 2016)
 - Evaluation of individual responder rates & patient subset analyses
 - Evaluate continued symptomatic improvement vs. placebo
 - 48 week MRI assessment for effect on cartilage



*Pending 48 week data, phase 3 funding, and FDA approval



'ADRESU' Trial Objectives

- Approved, reimbursed therapy for SUI in men following radical prostatectomy
 - Significant need for patients not responding to conservative methods
- Support proof of concept in female incontinence

Progress/Data

- Pilot clinical trial data published ^{1,2}
- Increase maximum urethral closing pressure
- Reduction 24-hour pad weight
- Increased blood flow
- Ongoing 45 pt. Multicenter Pivotal Trial
 - Enrollment started Q3/2015
 - 2 years to enroll

Support

- Investigator initiated with Cytori support
- Substantial funding via Japanese Ministry of Health, Labour and Welfare

Development Plan

- Ongoing pivotal anticipated as approval/reimbursement trial
- Assuming positive data, seek approval and reimbursement based on 12 month assessment
- Seeking commercial partnership with Japanese company

1. Gotoh et al. (2014) Int J Urology 21 (3) 294-300
2. Yamamoto et al. (2012) Int J Urology 19 (7) 652-9



Objectives

- Development medical countermeasure for mass casualty event- thermal burn \pm radiation exposure
- Proof of concept clinical data for use of Cytori Cell Therapy in wound healing

Progress/ Preclinical Data

- Improvement in multiple tissue repair parameters following administration of Cytori Cell Therapy^{1,2}
- Effective via multiple routes of administration^{1,2}
- Efficacy sustained following substantial exposure to radiation dose³

1. Foubert et al. (2015) Burns doi:10.1016/j.burns.2015.05.004

2. Foubert et al. (2015) Adv Wound Care doi:10.1089/wound.2015.0672

3. Foubert et al (manuscript in preparation)

Support

- Funded by \$106MM contract from Biomedical Advanced Research and Development Authority (BARDA)
- \$18.7MM of funding allocated through September 2016

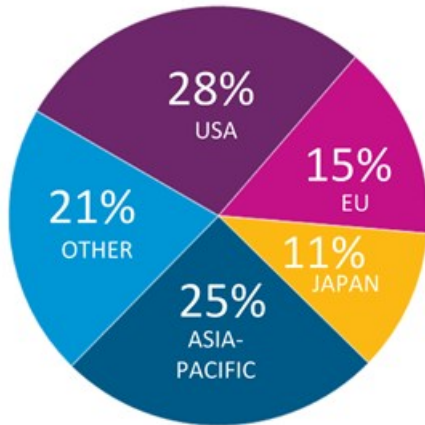
Development Plan

- Submit IDE application in 2016 for a proof-of-concept clinical trial
- Additional \$8.3 funding pending receipt of IDE approval for clinical trial

Corporate Information

Cytori Cell Therapy: Global Patent Estate

85 patents issued worldwide; over 75 applications pending



Goal: Protect Cytori's proprietary methods and devices for manufacturing Cytori Cell Therapy, as well as methods of using Cytori Cell Therapy in the treatment of scleroderma, and several other indications, including osteoarthritis and SUI.

Capitalization Summary

- Q2 2014- Corporate & management restructuring
- Change focus, eliminated/lowered outstanding liabilities and recapitalization

Select Data – as of 3/31/16	
Cash	~ \$9.4MM
Senior term loan	~ \$17.7MM
Common Shares outstanding	~ 13.3MM*
Outstanding options, RSAs and warrants	~ 1.1MM*
Fully diluted share count	~ 14.4MM*
Market capitalization	~ \$50MM**

* After giving effect to a 1:15 reverse stock split

** As of May 9th, 2016, based on closing share price of \$3.95*

Anticipated Key Corporate Milestones

2016 Milestones

- | | |
|----------------------|---|
| 1 st Half | <ul style="list-style-type: none">✓ EU MAP program launch✓ 24 WK ACT-OA interim data evaluation✓ 2 YR follow up EU scleroderma trial• Full STAR phase III trial enrollment |
| 2 nd Half | <ul style="list-style-type: none">• 48 WK ACT-OA data evaluation• Japan & MAP progress reported• Full SD-II enrollment |

2017 Milestones

- 1 YR STAR Phase III data
- SD-II data evaluation
- File US FDA PMA approval scleroderma
- File full EMEA approval scleroderma
- US Phase I Burn enrollment
- Full ADRESU enrollment

Thank You