Cytori Therapeutics

May 2017

NASDAQ: CYTX

San Diego | San Antonio | Tokyo | Wales

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Business Highlights- 2017 Focus

Habeo Cell Therapy for Scleroderma
US phase III enrolled
Trial read out mid 2017

Profitable Growth in Japan
Cytori Cell Therapy approved under new law
Fully enrolled SUI phase III trial 2017

$106m BARDA Thermal/Radiation Contract
US clinical milestone pending
Anticipated 2017

Azaya Acquisition- Nanoparticle Company
Nanoparticle Doxorubicin bioequivalent to RLD
Complete bulk manufacturing in 2017

Cytori Pipeline

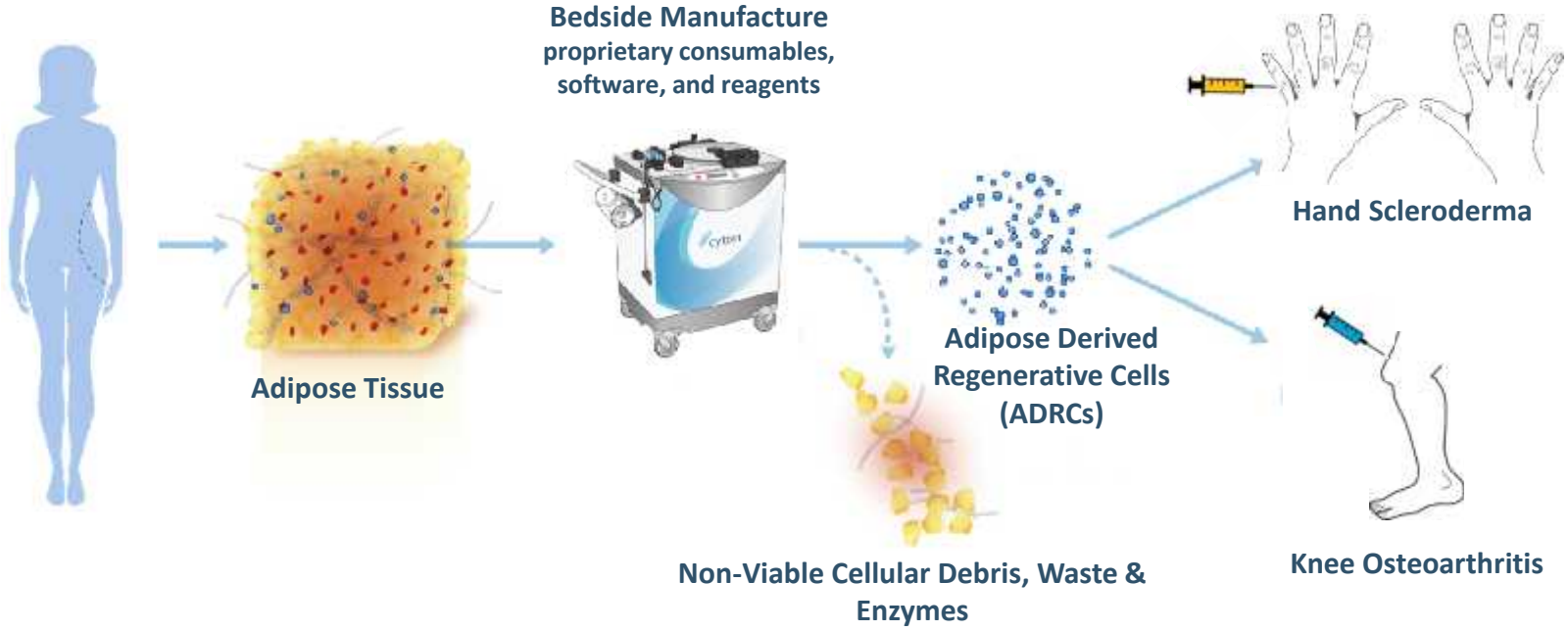
Therapeutic	Market	Indication	Preclinical	Phase 1	Phase 2	Phase 3	Launch/Note
Cytori Cell Therapy™							
Habeo™		Scleroderma					**2018/2019**
Habeo™		Scleroderma/Cryo*					**2019**
Habeo™		2' Raynauds					**2020**
ECCO-50		Knee Osteoarthritis					**Available JPN**
ECCI-50		Male SUI*					**2019**
DCCT-10		Thermal Burn/Radiation#					**Phase I 2017**
Cytori Nanomedicine™							
ATI-0918		Breast, Ovarian, Kaposi's					**2019**
ATI-0918		Breast, Ovarian, Kaposi's					
ATI-1123		Multiple					
CRM-2100		Scleroderma					

*Cytori supported, investigator initiated trial
BARDA funded program

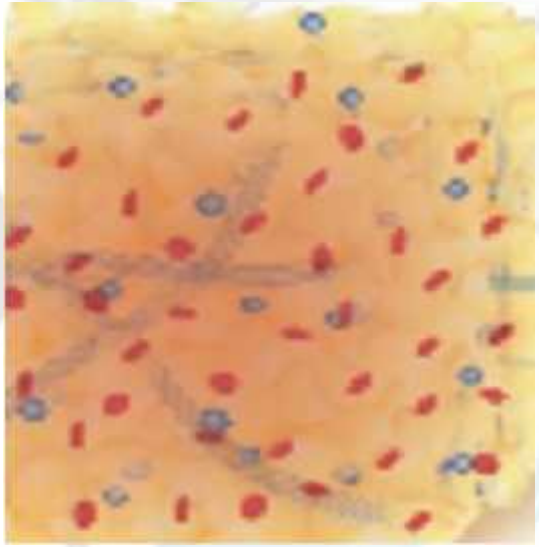
Actual timelines may materially differ from current projections.

Cytori Cell Therapy: Same Day Procedure

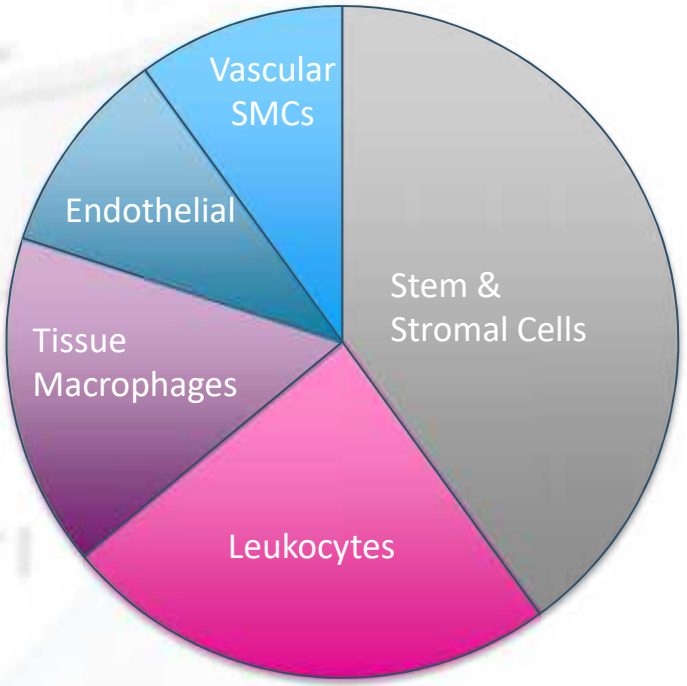
	1	2	3
PROCESS	**HARVEST** **Small Volume Liposuction (100-360 mL)**	**PROCESS** **Celution® System** **Tissue Processing, Cell Isolation & Dose Preparation**	**DELIVER** **Cytori® Cell Therapy™** **Delivery**
TIME	**£ 30 Min**	**£ 120 Min**	**5 - 30 Min**



Cytori Cell Therapy™



- ***Autologous adipose tissue***
- ***No cell culture***
- ***Manufactured in bedside GMP process***



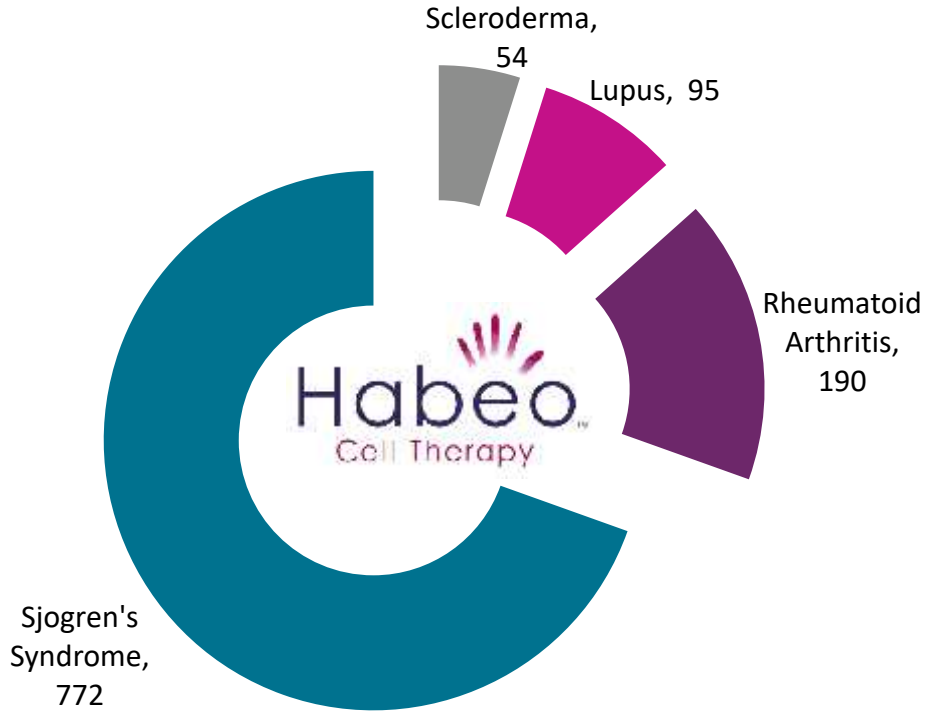
Adipose-Derived Regenerative Cells

Autologous, heterogeneous cell population highly-enriched for adipose-derived stem, stromal, vascular, angiogenic and immunoregulatory cell types

Habeo Cell Therapy™

Autoimmune Conditions with Large Unmet Needs

WW Prevalence (000s)*



<u>Lead Product Candidate, Scleroderma</u>

No FDA approved treatments for hand dysfunction in scleroderma patients*

Goal- Habeo positioned as first-in-class therapy with $600M WW annual peak revenue**

<u>Label Expansion Opportunity</u>

Raynaud's Phenomenon affects a significant population with connective tissue disease

Goal- Habeo positioned as therapy to reduce duration, frequency, and severity of attacks with $1.6B WW annual peak revenue**

*moderate to severe hand involvement; ** estimated opportunity

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 reported modulation of perivascular inflammation, improved endothelial function, and reduction of extracellular matrix (fibrosis)

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Habeo Cell Therapy™ Treatment Approach

Pilot/Phase I- SCLERADEC I Trial

	SCLERADEC I
Study size	12
Randomization	Open label*
Administration	Single administration (~4m cells/finger)
Sites	Single site - Marseille, France
Endpoints	• Cochin Hand Function Scale • Raynaud's Condition Score • Scleroderma Health Assessment Questionnaire • Pain • Modified Rodnan Skin Score • Capillaroscopy • Adverse events • Other
Follow-Up	36 months
Status	**Complete**

- **Six , 12 and 24 month data published[1,2,3]**
- **24 month data presented at Systemic Sclerosis World Congress in Lisbon, Portugal, February 19, 2016**
- **36 month follow up data showing sustained benefits materially consistent with those shown on two-year data**

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
* Investigator initiated trial

SCLERADEC I Clinical Data Summary

Pilot clinical data show concordant & sustained benefit across multiple endpoints

Parameter	Baseline	Three Years	% Improve-ment	p value*
Patient-Reported Outcomes				
Cochin Hand Function Score (/92)	48.5±10.8	21.3±13.5	56%	<0.0001
Raynaud's Condition Score (/10)	7.2±0.9	0.7±1.6	90%	<0.0001
Pain (VAS/10)	59.4±17.2	26.3±25.9	56%	0.0015
Scleroderma Health Assessment Questionnaire (/3)	1.36±0.3	0.83±0.6	39%	0.005
Objective Hand Function				
Strength*: Pinch (kg	3.3±0.9	4.4±1.8	42%	0.05
Strength*: Grip (kg)	15.4±6.0	18.8±6.8	22%	0.012
Extension: Max. Stretch Index Finger to Thumb (mm)	110.7±24.6	123.5±26.3	12%	<0.0001
Modified Rodnan Skin Score (hand)	10.92±4.85	6.25±4.88	43%	<0.0001
Capillaroscopy	***Baseline***	***12 Months***		
Vascular Suppression Score	1.7±0.8	1.1±0.7	35%	<0.001
Number of Giant Capillaries (total)	41.4±34.1	17.8±22.0	57%	0.0034
Number of Ramified Capillaries (total)	45.0±47.9	26.2±22.2	42%	0.110

SCLERADEC-I: 12 patient, open label single site study conducted in Marseille, France (Granel et al, 2014; Guillame-Jugnot et al, 2016)

**Strength data reported is average of both hands; data excludes patients 1 and 2 due to incomplete data set*

** p value from two-tailed paired T test*

Habeo Cell Therapy™ Ongoing Clinical Trials

Clinical/Regulatory Strategy

- **EU SCLERADEC I trial data used to support US FDA STAR trial approval, potential EU Conditional Marketing Authorization**
- **US FDA STAR trial for US PMA approval**
- **US STAR trial ± SCLERADEC II to obtain Full Marketing Authorization**

	STAR (Phase III)	SCLERADEC II (Phase III)*
Study size	88	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	Up to 6 sites in 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	**Enrolled, Data in mid-2017**	**Enrolling**

* Investigator-initiated trial

Habeo Cell Therapy™ - Market Overview & Positioning

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

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

Habeo™ Cell Therapy

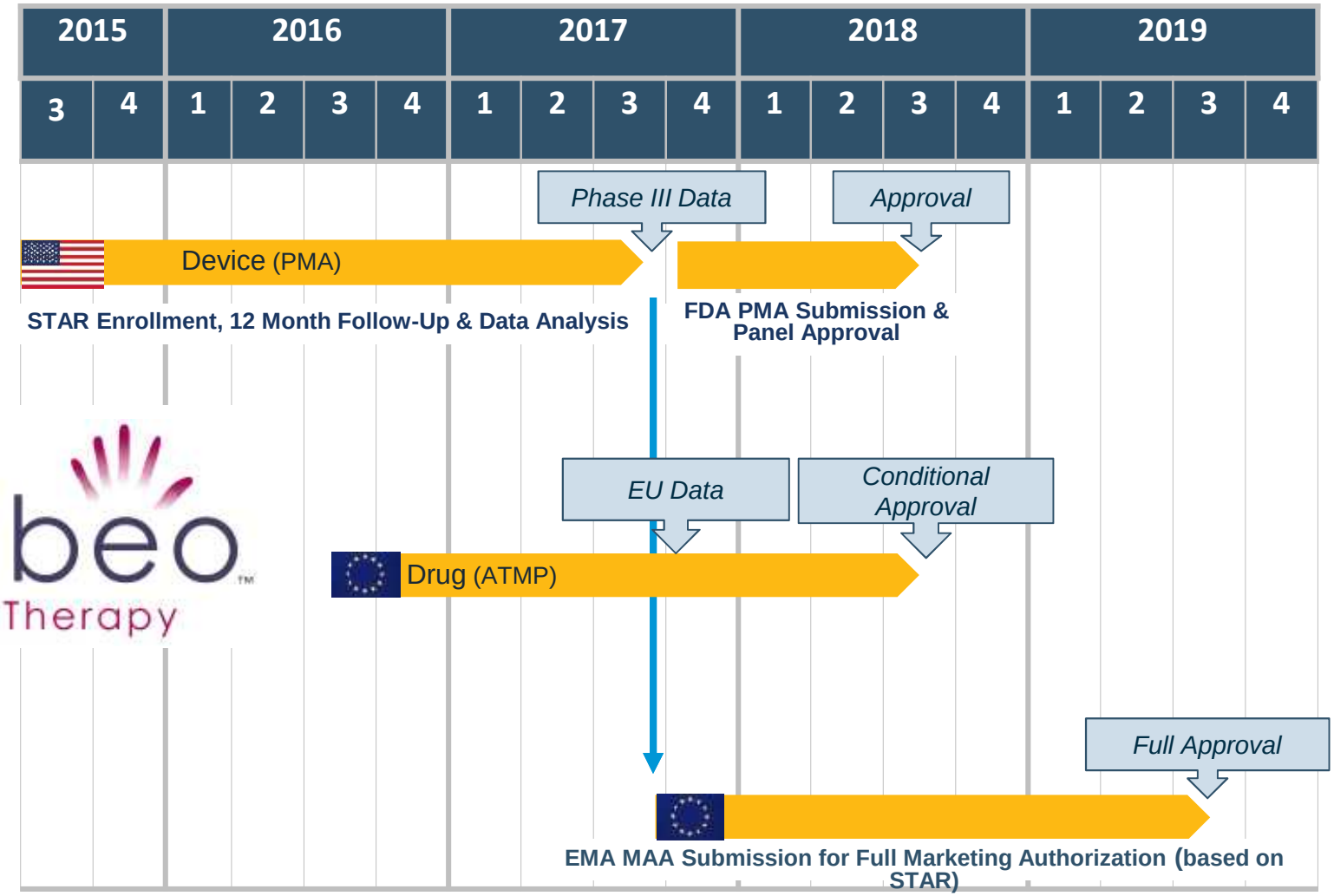
3rd Line Therapies

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

1. Thompson et al Arthritis Rheum. 2001;44(8):1841-7
2. Herrick (2008) BMJ Clin Evidence 09:1125

Habeo™ for Scleroderma- Projected Development Timeline



Habeo™ Cell Therapy

Actual timelines may materially differ from current projections.

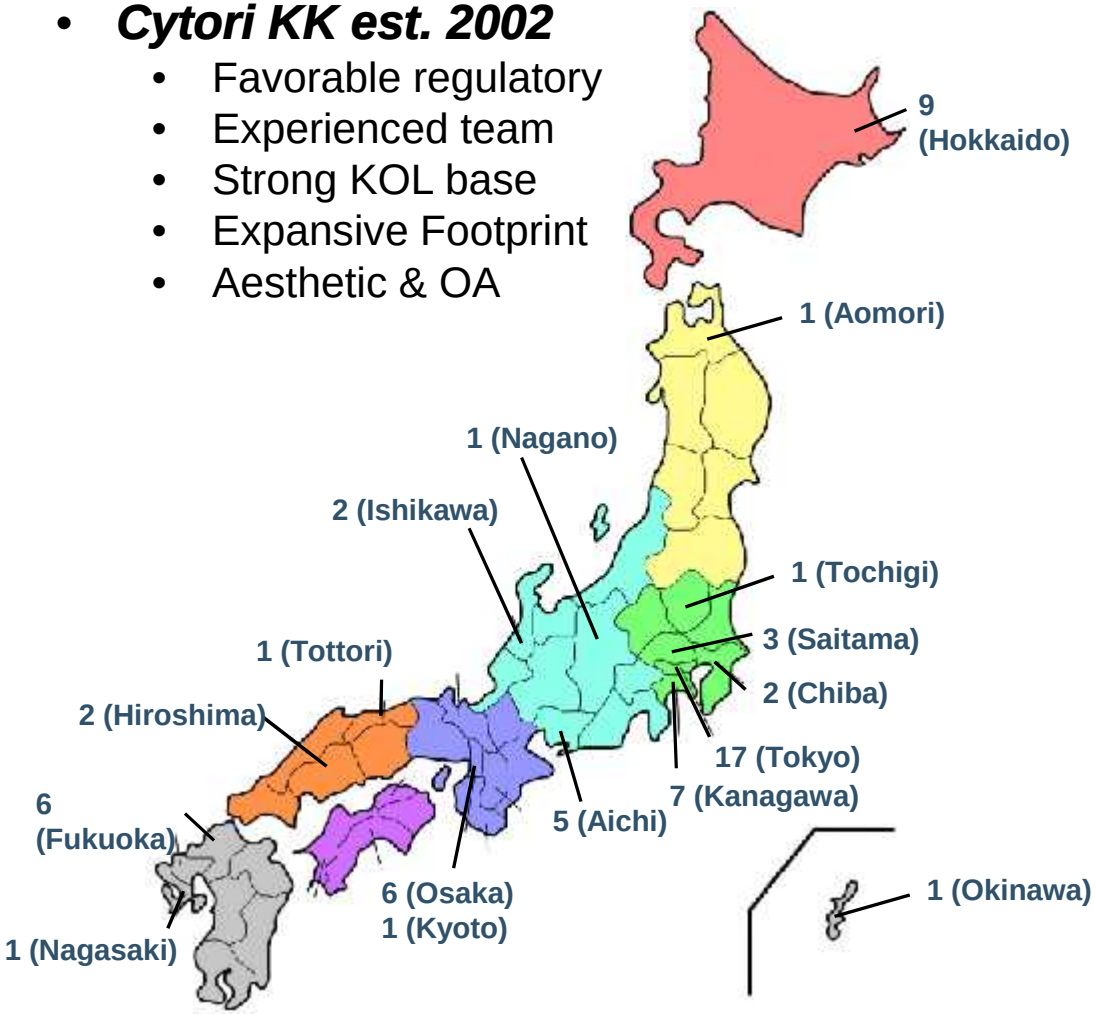
Cytori- US Government Contract

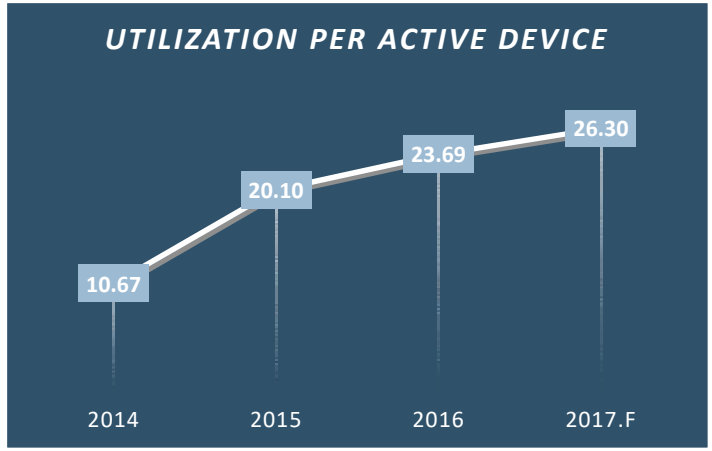
Contract goal- to develop national countermeasure to treat radiation in conjunction with thermal burn

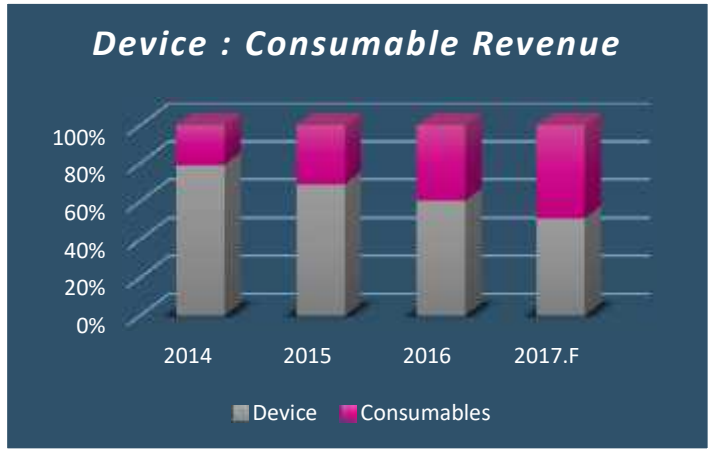
- Funded by contract of up to $106MM
- $20.7MM of funding allocated through 1st H 2017
- Successfully completed key rad/burn R&D milestones for clinical introduction
- 2017 Goal- milestone award of ~$8-12M, contingent upon FDA approval/BARDA review
- 'RELIEF' pilot clinical trial to assess safety and feasibility in patients with large 3rd degree burns undergoing skin grafting
  - Assess patients with 20%-50% total body surface area burn
  - Assess healing of meshed skin grafts
  - Utilize systemic (intravenous) delivery
    - Potential to improve generalized healing- grafted site, partial thickness burns, and skin graft donor site

Japanese Business

- ***Cytori KK est. 2002***
  - Favorable regulatory
  - Experienced team
  - Strong KOL base
  - Expansive Footprint
  - Aesthetic & OA







Profitable growth forecasted in 2017

‘ADRESU’ Phase III Approval Trial

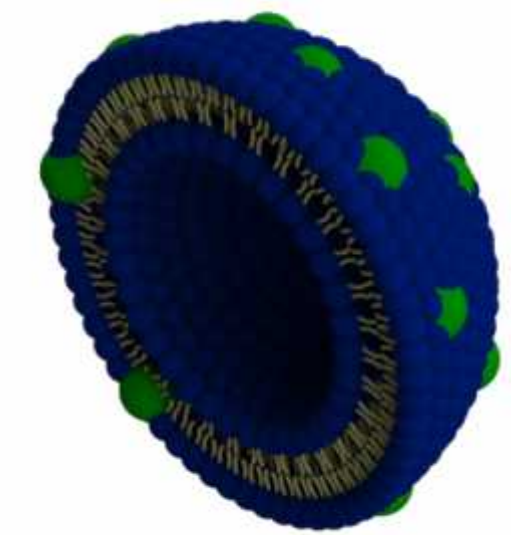
- **Current status**
  - Enrolling - 50%+ patients treated
- **Pilot trial data**
  - Increase maximum urethral closing pressure
  - Reduction 24-hour pad weight
  - Increased blood flow
  - Pilot clinical trial data published [1,2]
- **ADRESU details**
  - Investigator-initiated, 45 pt. multicenter pivotal trial, substantial institutional and governmental support
  - Primary endpoint: rate of patients with improvement in urinary leakage volume with greater than 50% reduction from baseline as measured by 24 hour urinary pad weight
- **Development Plan**
  - Anticipate enrollment completion 2017
  - Assuming positive data, seek approval and reimbursement based on 12 month assessment
  - Partnering opportunity

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

Cytori Nanomedicine

- **Recent acquisition of proprietary nanoparticle platform technology**
- **US R&D and manufacturing plant**
- **3 Pipeline additions**
  - ATI-0918- complex generic oncology drug- bioequivalent to RLD- Caelyx™
  - ATI-1123- NCE oncology drug- phase II ready asset
  - CRM-2100 nanoparticle based regenerative drug for scleroderma

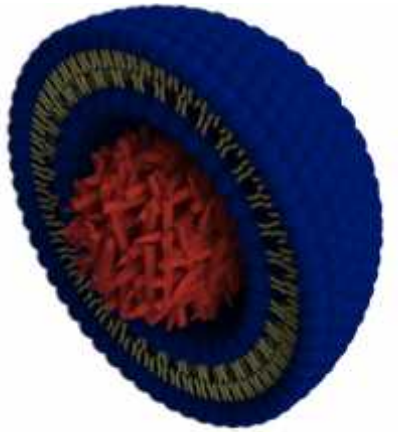
PSL or Protein Stabilized Liposomal Nano Particle Technology

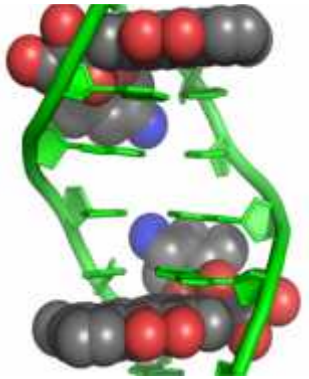


- Sustained release
- Shield toxic drugs
- Deliver molecules and GFs
- Reformulation
- Cell & Tissue Targeting

ATI-0918 Nanoparticle Encapsulated Doxorubicin

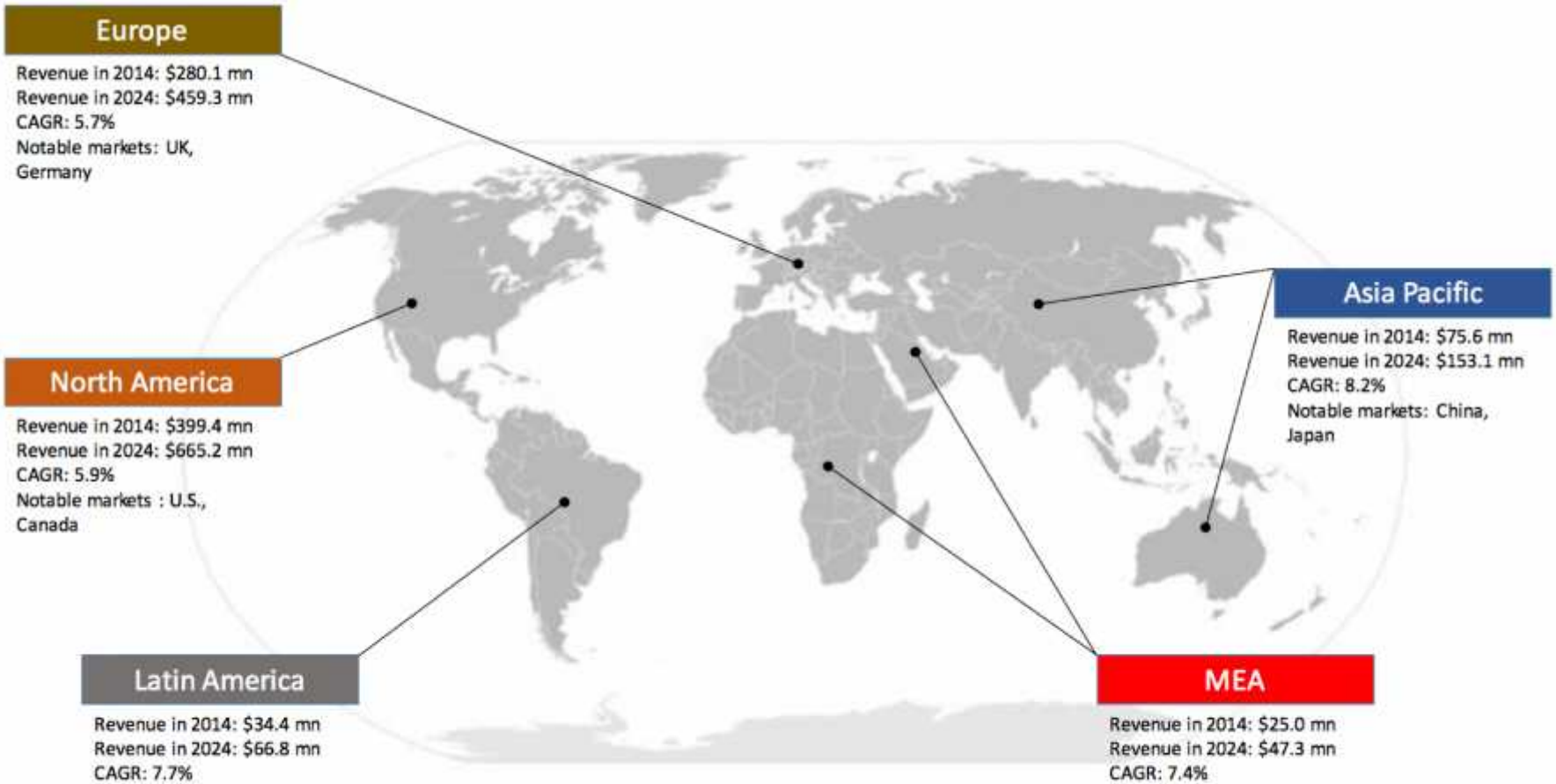
- **Generic nanoparticle, pegylated liposomal encapsulated form of chemotherapeutic, Doxorubicin**
  - Anthracycline topoisomerase II inhibitor
  - Activity via DNA intercalation
- **Encapsulated doxorubicin- much lower cardiotoxicity vs. non-encapsulated doxorubicin**
- **Dx: Breast Ca, Ovarian Ca, Kaposi's Sarcoma, Multiple Myeloma**
- **Market subject to recent global supply shortages**
- **ATI-0918 data is consistent with BE to J&J product, Caelyx™**





Liposomal Doxorubicin- Estimated Market Growth

Global market potential growing to 1.4B by 2024



Source: WHO, U.S. CDC, FDA, NIH Journals, Investor Presentations, Primary Interviews, Grand View Research

*Source: Grand View Research

ATI-0918 Nanoparticle Encapsulated Doxorubicin

Regulatory Approval for Generics- ANDA

- **FDA- same process as NDA except bio equivalency (BE) trial substitution for animal studies, clinical studies & bioavailability**
- **ATI-0918 clinical trial data consistent with BE to Caelyx®**
- **Next steps**
  - **File for EMA approval following stability testing**
  - **Discussion with FDA, PMDA (Japan), CFDA (China) to clarify utility of current BE data for approval - ongoing**

Cytori Nanoparticle Manufacturing Facility in United States

San Antonio, Texas Facility

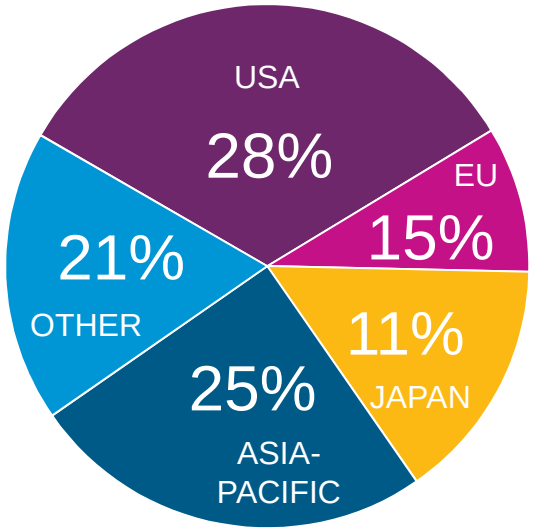
- ✓ Experienced team, 2 positive trials
- ✓ 10 year track record in R&D, manufacture
- ✓ Proprietary processes & controls
- ✓ State-of-the-art GMP manufacturing plant
- ✓ Full in-house analytical lab capability

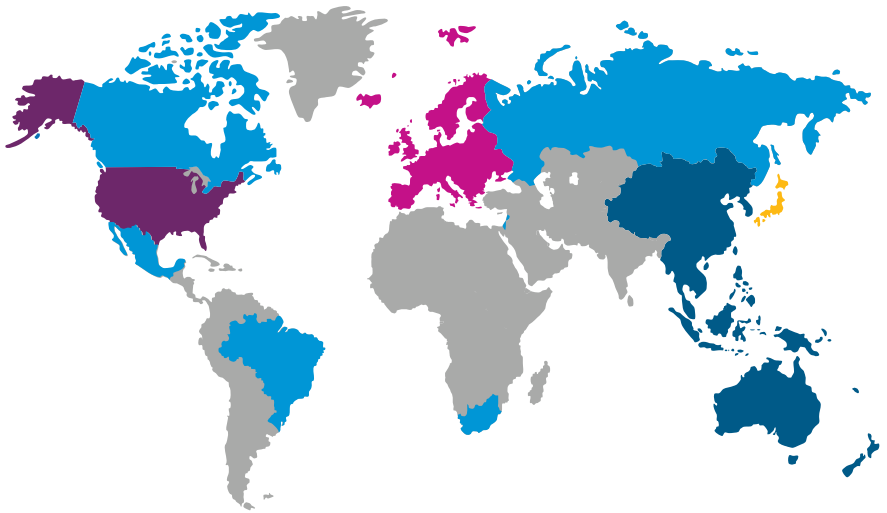
Key Milestones

- ✓ Complete- Bioequivalence trial
- • Q4 2017- Initiate stability testing
- • 2017/18 Partnering
- • 2019- EU launch

Cytori Global Patent Estate

102 patents issued worldwide; over 65 applications pending





Goal: Protect Cytori's proprietary methods and devices for cell therapy & nanoparticle technology as well as methods of using Cytori technology in the treatment of scleroderma, and several other indications.

Capitalization Summary

Select Financial Data – as of 3/31/17	
Cash	~ $15MM (proforma)
Senior term loan	~ $15.9MM
Common Shares outstanding	~ 32.5MM
Outstanding options, RSAs and warrants	~ 4.8MM
Fully diluted share count	~ 37.3MM
Market capitalization	~ $35MM*

* Based on share price of $1.08 at closing on May 23, 2017

2017 Objectives & Milestones

- STAR Phase III one year follow-up data
- Submit for US FDA PMA approval for Habeo™ in scleroderma
- Submission ready for EMA authorization for Habeo™ in scleroderma
- US Phase I BARDA-funded trial initiation
- Full ADRESU enrollment
- IDE for for Habeo™ for secondary Raynaud's
- Complete bulk manufacturing of nanoparticle doxorubicin for EMA approval
- EU commercial partner for nanoparticle doxorubicin

Thank You