Enhancing lives through novel therapeutics

Cytori Therapeutics

February 2017

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 statements regarding our acquisition of assets from Azaya Therapeutics, Inc. (the "Acquisition"); our financial condition and prospects; our commercialized and pipeline products and technologies; the timing and conduct of our clinical trials and other parties' clinical trials involving Cytori Cell Therapy, ATI-0918 and ATI-1123 (collectively, our Products"), including associated financial, clinical and regulatory burdens and projected timing for trial approval, enrollment and completion; the various medical indications and markets that may be addressed by our Products; the potential safety and effectiveness of our Products, including clinical outcomes; conduct of our European managed access program; anticipated uses of clinical trial data regarding our Products; regulatory, reimbursement and commercial strategies and pathways; potential costs and other adverse effects of diseases targeted for treatment by our Products, 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; our ability to successfully execute our EU managed access program; uncertain clinical outcomes, including uncertain outcomes of our STAR trial, the investigator-initiated SCLERADEC II and ADRESU trials, and potential thermal burn (BARDA) and docetaxel (ATI-1123) trials; regulatory uncertainties (including potentially adverse or delayed decisions regarding our existing and expected regulatory registrations, approvals and authorizations for ATI-0918, Habeo Cell Therapy and other Products); unexpected challenges in Japan that prevent or delay profitable growth of our Japan sales and operations; 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 Products and technologies); failure to maintain our substantially reduced cash burn; failure to achieve projected product revenue and contract revenue growth; failure to identify licensees or other partners for our Products on currently anticipated timelines or at all; our and our partners' failure to launch products and grow revenues in 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; increasing or unanticipated competitive pressures and/or material changes in anticipated market sizes (or market share); potential performance issues with our Products and technologies; failure to grow or adequately protect/enforce our patent estate and other intellectual property; lack of prospective partner/customer acceptance of our Products and technologies; potential disputes with existing or prospective licensees; 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 reports on Form 10-Q filed with the U.S. Securities and Exchange Commission for a more detailed description of these risks. Certain of the foregoing risks assume completion of the Acquisition.

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Business Highlights- 2017 Focus

Cytori acquired 2 drugs and new drug development platform from Azaya

1. Generic nanoparticle oncology drug, bioequivalent to reference listed drug (RLD)
2. Novel nanoparticle oncology drug, phase II ready asset
3. Synergistic regenerative medicine & reformulation platform

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 enroll SUI phase III trial 2017

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

Azaya Acquisition- Nanoparticle Company
Nanoparticle Doxorubicin bioequivalent to RLD
Complete manufacturing and file 2017

Cytori Pipeline

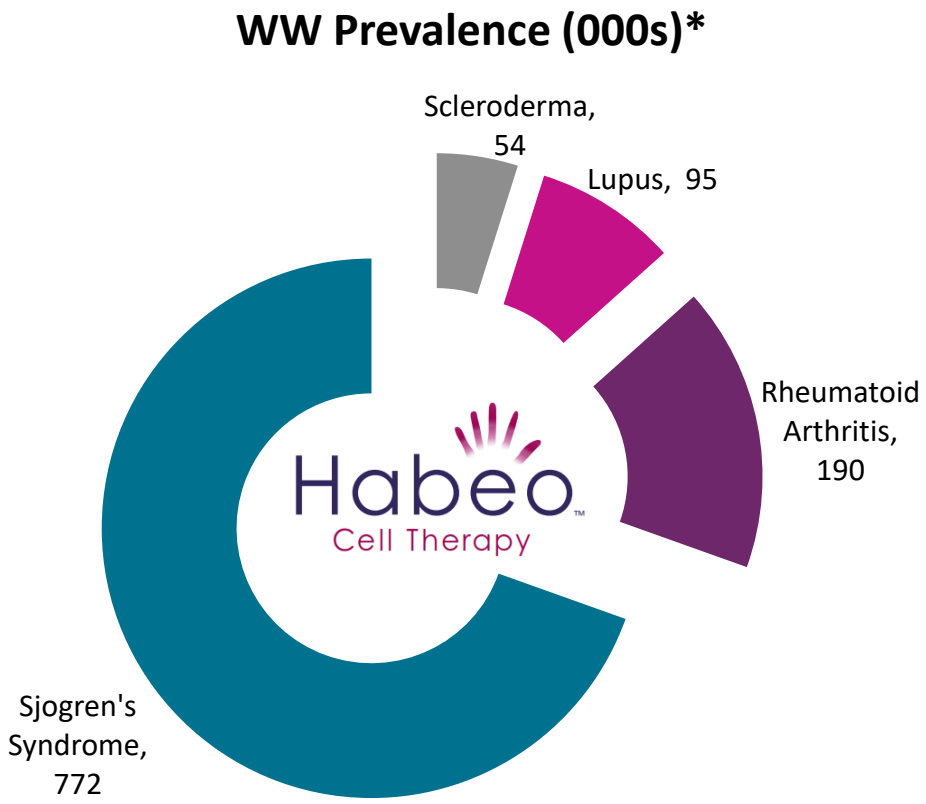
Therapeutic	Market	Indication	Preclinical	Phase 1	Phase 2	Phase 3	Launch/Note
Cytori Cell Therapy™							
Habeo™		Scleroderma					**2018/2019**
Habeo™		Scleroderma/Cryo*					**2019**
Habeo™		2' Raynauds					**2020**
ECCO-50		Knee Osteoarthritis					**Available JPN**
ECCI-50		Male SUI*					**2019**
ECCI-50		Breast Cancer Recon*					**AMT/2020**
DCCI-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					

*Substantial third-party financial support or investigator initiated trial

BARDA funded program

Habeo Cell Therapy™

Focus- Autoimmune Conditions with Large Unmet Needs



Lead Product Candidate, Scleroderma

No FDA approved treatments for hand dysfunction in scleroderma patients*

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

Label Expansion Opportunity

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

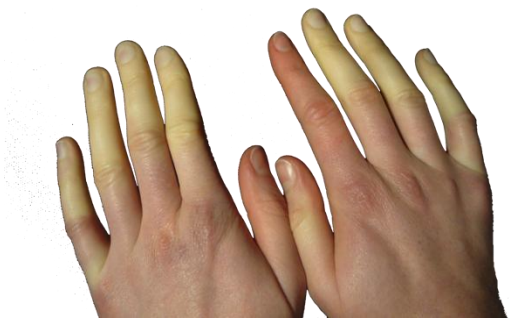
Goal- Habeo positioned as therapy to reduce duration, frequency, and severity of attacks with $1.6B WW annual peak revenue**

*moderate to severe hand involvement; ** estimated opportunity

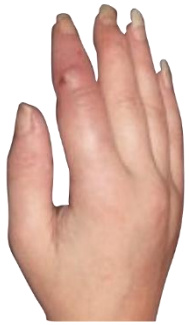
Scleroderma

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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Scleroderma- Treatment Approach

- Ambulatory
- Procedure room
- Local or mild conscious sedation
- Single administration Habeo
- 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 - 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*

HABEO™ 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*

Scleroderma- 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™- 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

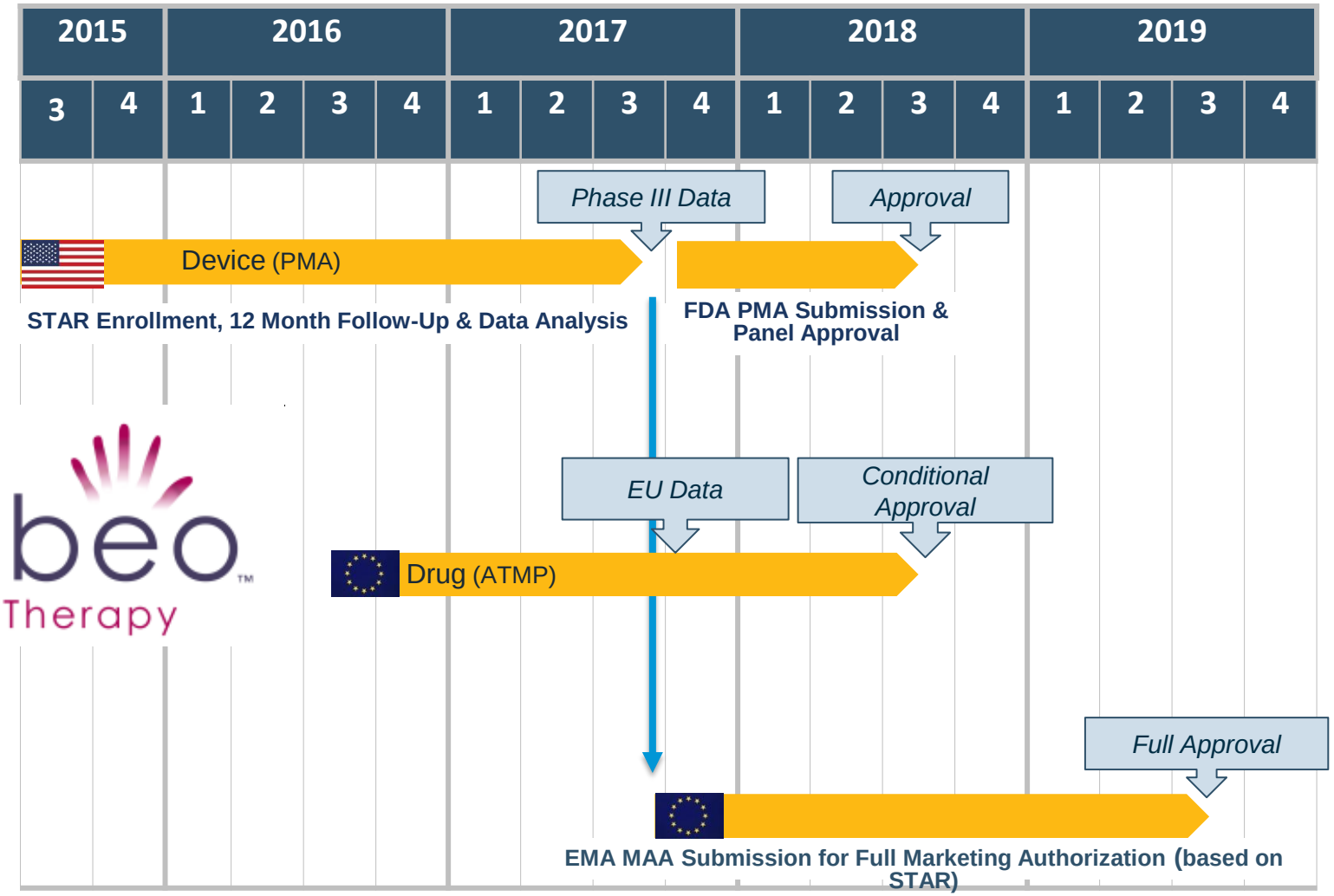
3rd Line Therapies

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

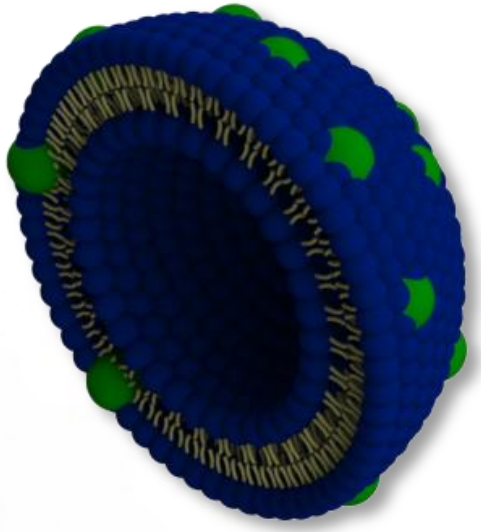
Cytori Nanomedicine- Azaya Acquisition

ACQUISITION HIGHLIGHTS

Cytori acquires 2 drugs and new drug development platform:

1. Complex generic oncology drug- bioequivalent to RLD
2. NCE oncology drug- phase II ready asset
3. 'Druggable' Regenerative Medicine platform with broad reformulation opportunities

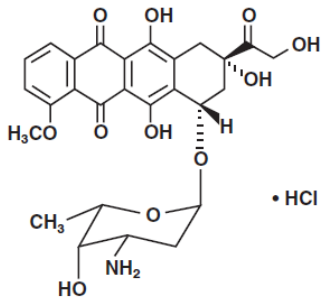
PSL or Protein Stabilized Liposomal Nano Particle Technology

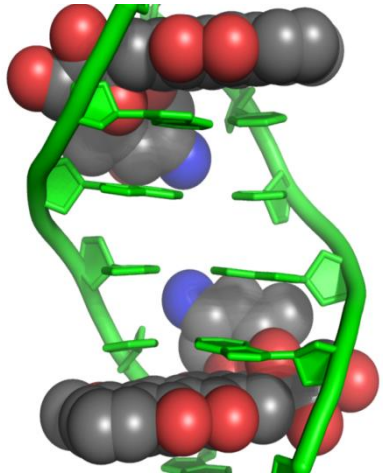


- Sustained release
- Shield toxic drugs
- Deliver molecules and GFs
- Reformulation
- Cell & Tissue Targeting

Doxorubicin

- **Doxorubicin (Adriamycin)**
  - Anthracycline topoisomerase II inhibitor
  - Activity via DNA intercalation
  - Dx: breast cancer, bladder cancer, Kaposi's sarcoma, lymphoma, and acute lymphocytic leukemia
  - Toxicities: cardiomyopathy and congestive heart failure, dose dependent
- **Liposomal encapsulated doxorubicin (Doxil/Caelyx®) is the clinically dominant formulation**
- **Liposomal doxorubicin has much lower cardiotoxicity than non-liposomal doxorubicin**



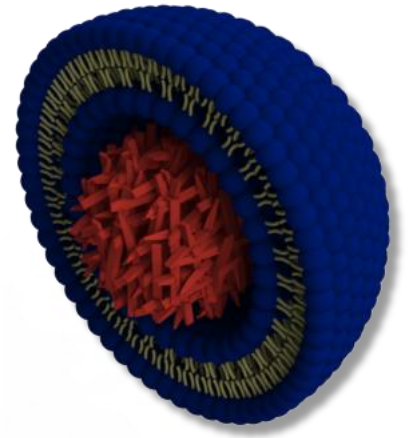


ATI-0918 Nanoparticle Encapsulated Doxorubicin

- **Nanoparticle, pegylated liposomal encapsulated form of chemotherapeutic, Doxorubicin**
  - Pegylated liposomal encapsulation overcomes delivery challenges with conventional liposome technology
  - Enhanced tumor delivery
  - Exhibits in vivo reduction of macrophage uptake, decreased clearance, and lower toxicity
- **Estimated European market potential ~$450m by 2024***
- **Dx: Breast Ca, Ovarian Ca, Kaposi's Sarcoma, Multiple Myeloma**
- **Subject to recent global supply shortages**

ATI-0918- Cytori nanoparticle, pegylated liposomal encapsulated form of Doxorubicin

ATI-0918 bioequivalent to EU RLD- Doxil/Caelyx®
Over a decade of R&D, manufacturing expertise
No US generic manufacturer
No current generic in EU, one in US
Goal- EU launch 2019 via partner



*Source: Grand View Research

ATI-0918 Nanoparticle Encapsulated Doxorubicin

Global Regulatory Approval for Generics

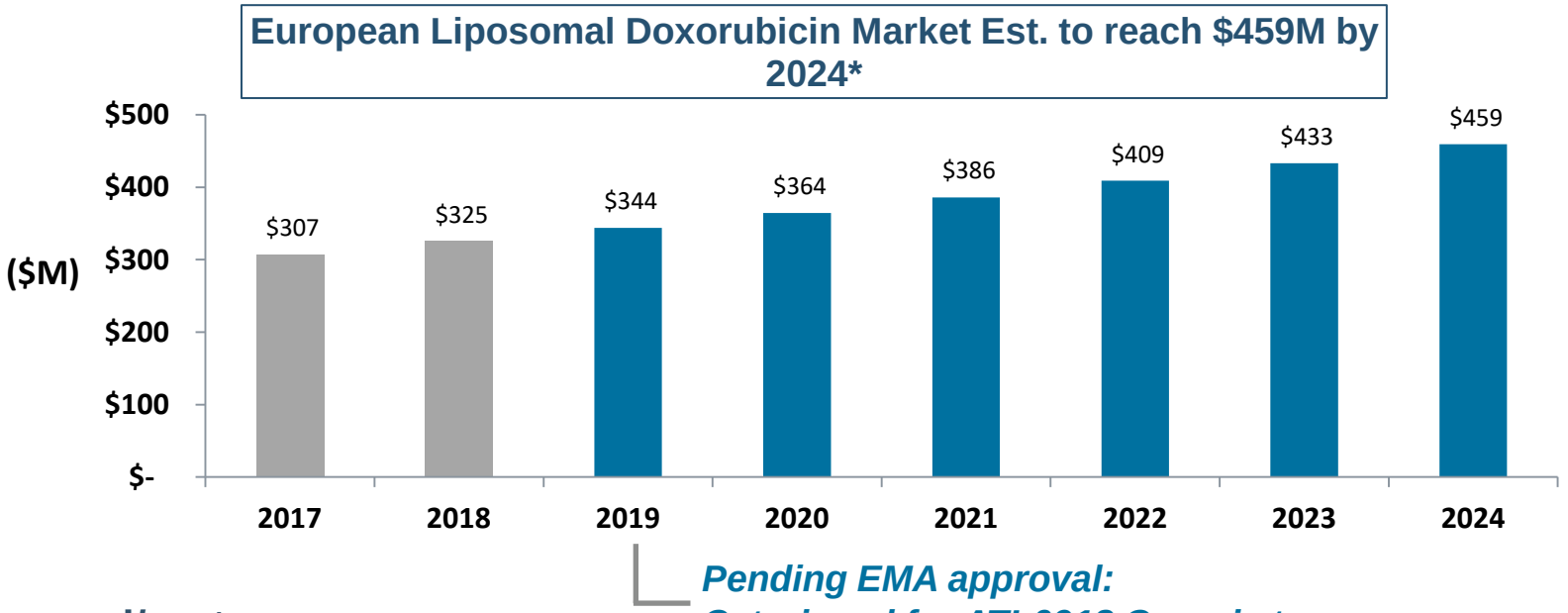
- **ATI-0918 has been shown in a clinical trial to be BE to Doxil/Caelyx®**
- **US, Europe and Japan regulations use similar approach to determine bioequivalence (BE)**
  - BE for generic liposomal products requires that they meet the 90% CI for Cmax and AUC for the innovator drug
  - Both are required to be between the 80-125% of the mean values for the approved drug
- **May require a BE study in the US for an FDA approval**
- **Some special items are required in addition to BE criteria**

ATI-0918 Nanoparticle Encapsulated Doxorubicin

Commercial Goals

1. Offering 1st Generic Liposomal Doxorubicin in EU via partner

- Europe- 34% of WW liposomal doxorubicin revenue
- Janssen's Doxil/Caelyx® branded liposomal doxorubicin; no EU generics
- Market growth driven by cancer awareness/prevalence, new technology
- EU generic pricing typically 70% of branded



2. US approval/partner

3. Address ROW via partners

*Source: Grand View Research

Cytori Nanoparticle Manufacturing Facility in Texas

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

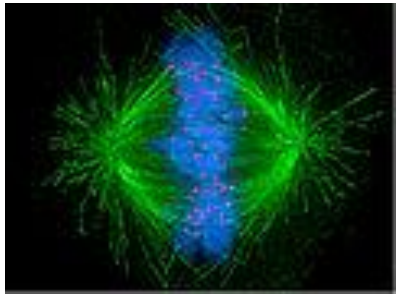
Key Milestones

- ✓ Complete- Bioequivalence trial
- • Q4 2017- Manufacture stability lots
- • 2017/18 Identify EU/global partner
- • Q1 2018- File for EMA review
- • Q1 2019- EU launch

Docetaxel

Docetaxel

- Docetaxel binds to microtubules preventing depolymerisation
- Dx: variety of cancers, breast, lung, prostate, gastric, head and neck, and ovarian cancer
- Toxicities: neutropenia, neuropathy



Branded Docetaxel (TAXOTERE, Sanofi)

- Available in 90 countries, approved for 11 indications
- Peak sales of €2.1B in 2010; €222M in 2015 (22% YOY decline due to generics)

Opportunity Analog

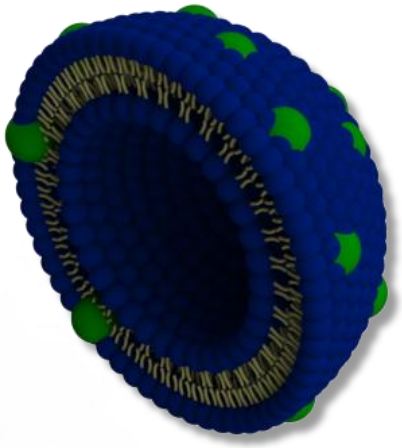
- BMS TAXOL peak sales of $1.6B in 2000, prior to patent expiration
- Celgene ABRAXANE next-generation paclitaxel with expected sales of $1.0B in 2016 (62.5% of peak)

ATI-1123 Opportunity as Next-Generation TAXOTERE

- $1.23B (62.5% of $1.98B TAXOTERE peak sales)

* IMS Health reported by Teva and Eagle

Pipeline Opportunity- ATI-1123



PSL or Protein Stabilized Liposomal Nano Particle Technology

- **Pegylated**
- **Albumin stabilized**

ATI-1123 Preclinical

- 14 preclinical studies demonstrating:
  - Greater efficacy than docetaxel
  - Higher drug exposure
  - Higher distribution & greater activity in certain tumors
- Serum pK studies indicate serum AUC 4-5x higher with ATI-1123 vs. Docetaxel

ATI-1123 Phase I Trial Report

- In a 29 patient phase I trial- doses of: 15, 30, 60, 75, 90, and 110 mg/m^2
  - ATI-1123 achieved a 20% increase in MTD vs. standard docetaxel and demonstrated signs of efficacy with 1 partial responder (with previous exposure to docetaxel)
  - 16 of 26 evaluable patients (62%) experiencing stable disease, and with a toxicity profile comparable to and, in some cases, improved vs. that expected of docetaxel
  - 82% of patients had clinical benefit

Potential Advantages

- Lower total dose
- Enhanced uptake in certain key tissue types
- Potential for less neurotoxicity*

*Deeken et. al. Cancer chemotherapy and pharmacology, 2013, 71:627–633.

Synergy- Nanomedicine & Regenerative Medicine

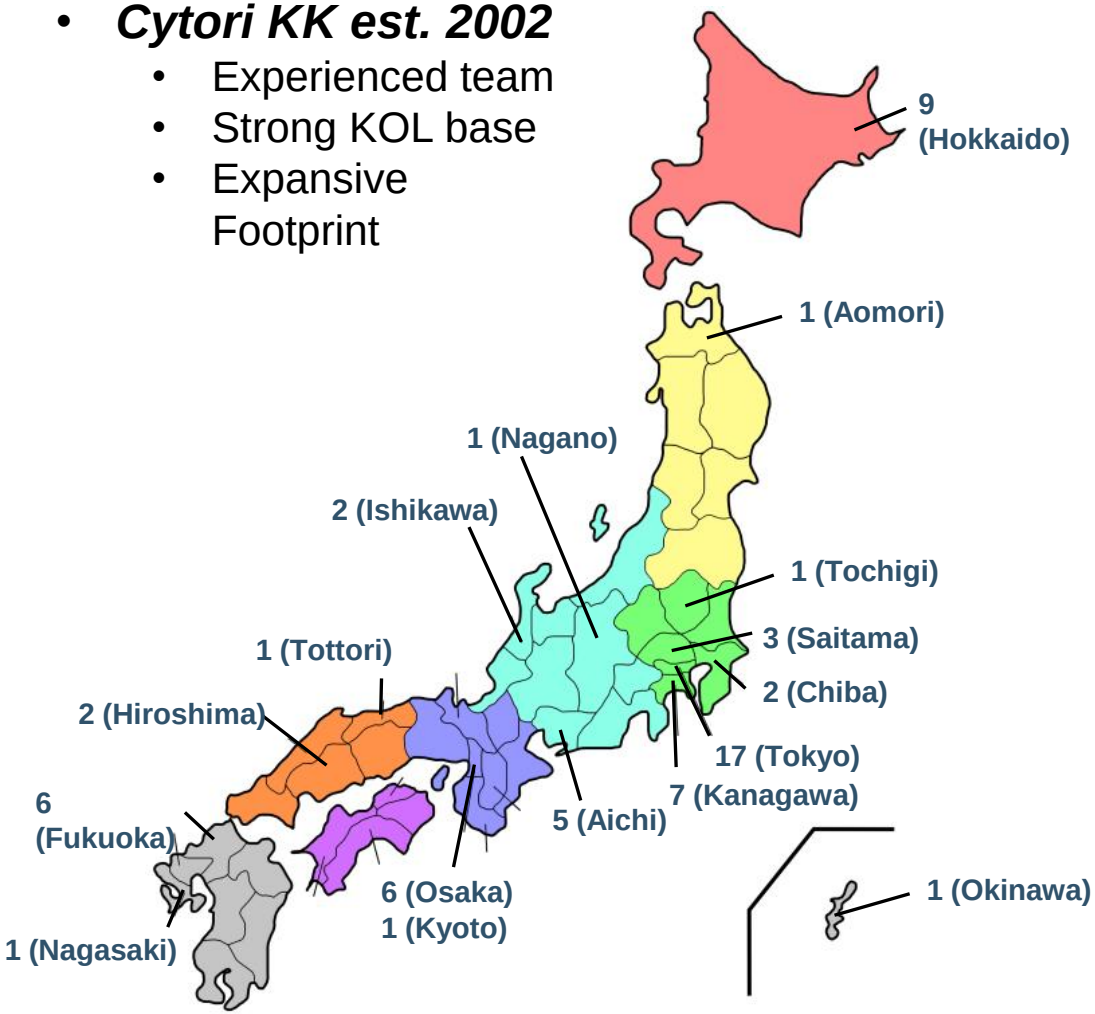
- Goal- make regenerative medicine ‘druggable’
- Currently in preclinical stage of development
- Envisioned benefits:
  - Greater efficacy
  - More versatile dosing regimes
  - More simple logistics
  - Greater cost effectiveness

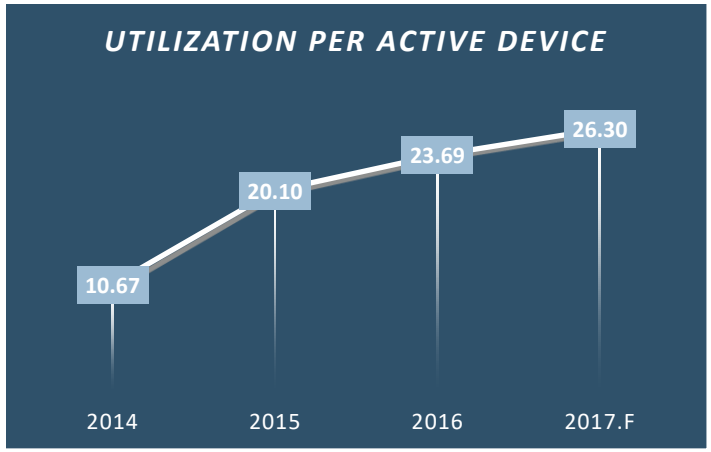
Cytori- BARDA Contract

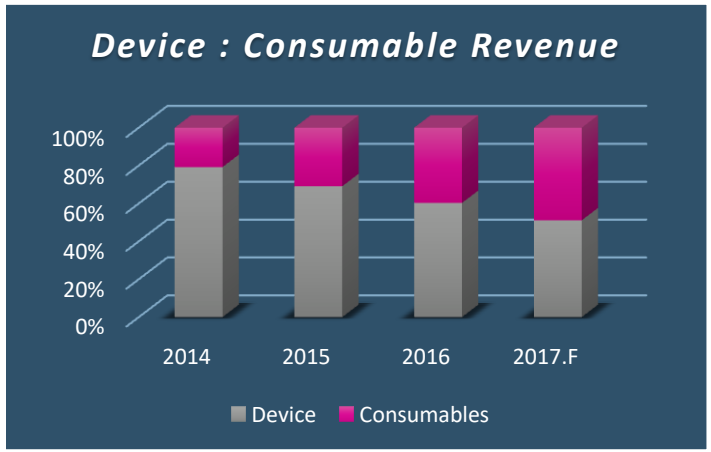
- Funded by contract of up to $106MM
- $20.7MM of funding allocated through 1st H 2017
- Successfully completed key R&D milestones for clinical introduction
- 2017 Goal- milestone award of ~$8-12M, contingent upon FDA approval/BARDA review
- 'RELIEF' pilot clinical trial to assess safety and feasibility 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***
  - Experienced team
  - Strong KOL base
  - Expansive Footprint







Favorable regulatory treatment
Profitable growth forecasted in 2017

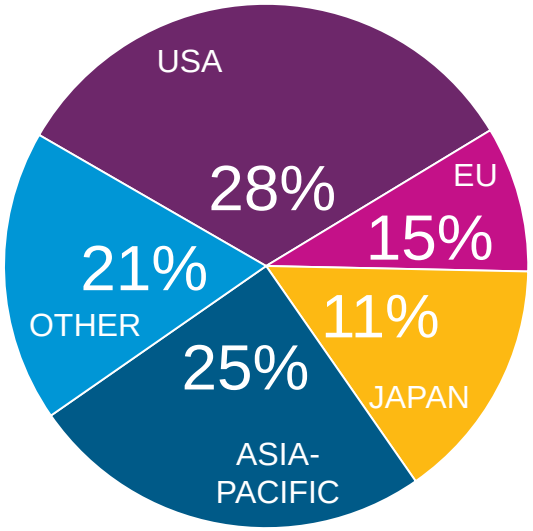
‘ADRESU’ Phase III Approval Trial

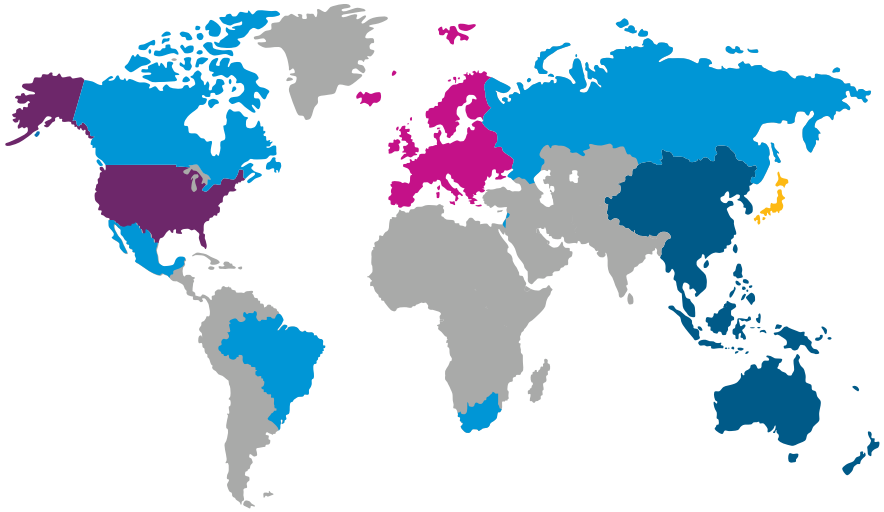
- **Current status**
  - Enrolling- 24/45 patients treated
- **Pilot trial data**
  - Increase maximum urethral closing pressure
  - Reduction 24-hour pad weight
  - Increased blood flow
  - Pilot clinical trial data published [1,2]
- **ADRESU details**
  - 45 pt. multicenter pivotal trial, substantial 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 Global Patent Estate

102 patents issued worldwide; over 65 applications pending





Goal: Protect Cytori's proprietary methods and devices for Cytori 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 9/30/16	
Cash	~ $15MM
Senior term loan	~ $17.7MM
Common Shares outstanding	~ 20.5MM
Outstanding options, RSAs and warrants	~ 4.3MM
Fully diluted share count	~ 24.8MM
Market capitalization	~ $37MM*

* Based on share price of $1.80 at closing on February 10, 2017

Key Corporate Objectives & Milestones

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 enrollment
- Full ADRESU enrollment
- IDE for for Habeo™ for secondary Raynaud's
- Complete manufacturing of nanoparticle doxorubicin for EMA approval
- EU commercial partner for nanoparticle doxorubicin

Thank You