



Regenerative Biology for Healthier Lives

Investor Presentation

May 2025



Forward-Looking Statements

Statements in this presentation, including the information set forth as to the future financial or operating performance of Biorestorative Therapies, Inc. (the “Company”) that are not current or historical factual statements may constitute “forward-looking” information within the meaning of the U.S. federal and state securities laws. When used in this presentation, such statements may include, among other terms, such words as “may,” “will,” “expect,” “believe,” “plan,” “anticipate,” “intend,” “estimate,” “project,” “target” and other similar terminology. These statements reflect current expectations, estimates and projections regarding future events and operating performance and speak only as to the date of this presentation. Readers should not place undue importance on forward-looking statements and should not rely upon this information as of any other date.

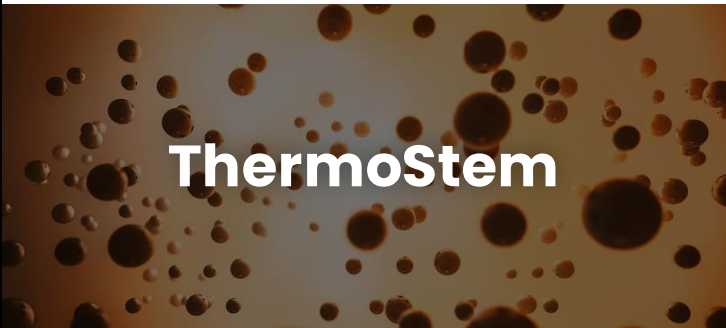
Forward-looking statements involve known and unknown risks, uncertainties and other important factors that could cause our actual results, performance or achievements, business plan or industry results, to differ materially from our expectations of future results, performance or achievements expressed or implied by these forward-looking statements. These forward looking statements may not be realized due to a variety of factors, including without limitation: (i) our limited operating history, lack of significant revenues, and substantial losses since inception; (ii) our ability to obtain sufficient financing to initiate and complete our clinical trials and fund our operations; (iii) our ability to timely and successfully develop and commercialize BRTX-100, our lead product candidate for the treatment of chronic lumbar disc disease; (iv) delays in enrolling patients in our clinical trials; (v) disruption to our access to the media (including cell culture media) and reagents the Company is using in the clinical development of our cell therapy product candidates; (vi) failure of our clinical trials to demonstrate adequately the safety and efficacy of our product candidates; (vii) our lack of manufacturing capabilities to produce our product candidates at commercial scale quantities and lack of an alternative manufacturing supply; (viii) a loss of our exclusive license rights with regard to our disc/spine technology; (ix) safety problems encountered by us or others developing new stem cell-based therapies; (x) ethical and other concerns surrounding the use of stem cell therapy which negatively impact the public perception of our stem cell products and/or services; (xi) our limited experience in the development and marketing of cell therapies; (xii) our reliance on novel technologies that are inherently expensive and risky; (xiii) significant product liability claims and litigation to which the company may be subject, including potential exposure from the use of our product candidates in human subjects; (xiv) our inability to obtain reimbursement for our products and services from private and governmental insurers; (xv) our inability to protect our proprietary rights; and (xvi) compliance with applicable federal, state, local, and international requirements. See also “management’s discussion and analysis of financial condition and results of operations – factors that may affect future results and financial condition” set forth in the Company’s most recent annual report filed with the SEC.


Many of these issues can affect the Company’s actual results and could cause the actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on behalf of, the Company. You are cautioned that forward-looking statements are not guarantees of future performance, and you should not place reliance on them. In formulating the forward-looking statements contained in this presentation, it has been assumed that business and economic conditions affecting the Company and the economy generally will continue substantially in the ordinary course. These assumptions, although considered reasonable at the time of preparation, may prove to be incorrect.

The description of the Company and its business in this presentation does not purport to be complete and is subject to the more detailed description of the Company and its business in the Company’s annual, quarterly and current reports filed with the SEC.

Fully Integrated Regenerative Medicine Company

DEVELOPMENT

**ThermoStem**

**BRTX-100**


Brown adipose derived stem cells

Bone marrow derived mesenchymal stem cells

PRECLINICAL

MID-STAGE CLINICAL

COMMERCIAL

**BioCosmeceuticals**

Secretome (novel exosome, growth factor/cytokine) biologics based technology for cosmetic applications

Experienced Leadership



Lance Alstodt
Chairman & CEO

- 30+ years leading, advising and operating companies within the Healthcare sector
- Founder of MedVest Capital, a Healthcare fund created in 2013
- Prior to that led the Medical Technology investment banking group at Bank of America Merrill Lynch and Leerink Partners



Robert Kristal
Chief Financial Officer

- 25+ years on Bay Street and Wall Street
- Most recently was the DOR for a Healthcare focused Investment Bank
- Career has spanned Trading, Sales, Investment Banking and Research



Francisco Silva
Vice President of R&D

- 20+ years in the R&D of cell-based and off-the-shelf therapeutics
- As BRTX's Vice President R&D, established high throughput Stem Cell Research Program based on his academic and industrial research experience
- Has obtained several patents in cell therapy, and has manuscripts published with regards to translational stem cell research
- Recently appointed section editor of the newly launched Regenerative Medicine section of the peer-reviewed *Journal of Translational Medicine*

DEVELOPMENT



ThermoStem

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stem cells

PRECLINICAL



BRTX-100

Bone marrow derived
mesenchymal stem cells

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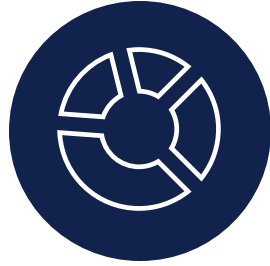


BioCosmeceuticals

Secretome (novel exosome,
growth factor/cytokine)
biologics based technology
for cosmetic applications

Going Commercial: Biologics Based Cosmetic Products

Key Features of Cosmetics & Hair Growth Biologics Products



The Market

- Global Cosmetic market \$63 B and growing
- Global injectable market 12% CAGR 2021–2026 Est \$11.9 B
- Derms need differentiated product
- Bundle with current procedures



Manufacturing

- cGMP ISO 7 Certified Facility
- Cellular Biology Engineering Expertise
- Multi use facility highlights versatility



Products

- Cell based biologics engineered and targeted for both clinical and aesthetic use
- Exclusive 5-year commercial agreement with Cartessa Aesthetics

DEVELOPMENT



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BioCosmeceuticals

Secretome (novel exosome,
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biologics based technology
for cosmetic applications

Robust Preclinical & Clinical Pipeline

			PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	COMMERCIAL
AUTOLOGOUS	Spine	Lumbar	PHASE 2 ONGOING				
		Cervical	CLEARED TO BEGIN PHASE 2				
		Thoracic					
	Musculoskeletal System	Hips/Knees					
		Extremities					
		Avascular Zones					
ALLOGENEIC	Metabolic	Type 2 Diabetes					
		Obesity					
		PCOS					
	Brown Adipose Stem Cells	ARDS					
		Long Hauler Covid					
	Secretome / Exosome						
		Cosmetic					

Chronic Lumbar Disc Disease (cLDD)

258 M

U.S. adult population

64.5 M

American adults with chronic lower back pain prevalence

32 M

American adults with diagnosed and treated disc degeneration

15 M

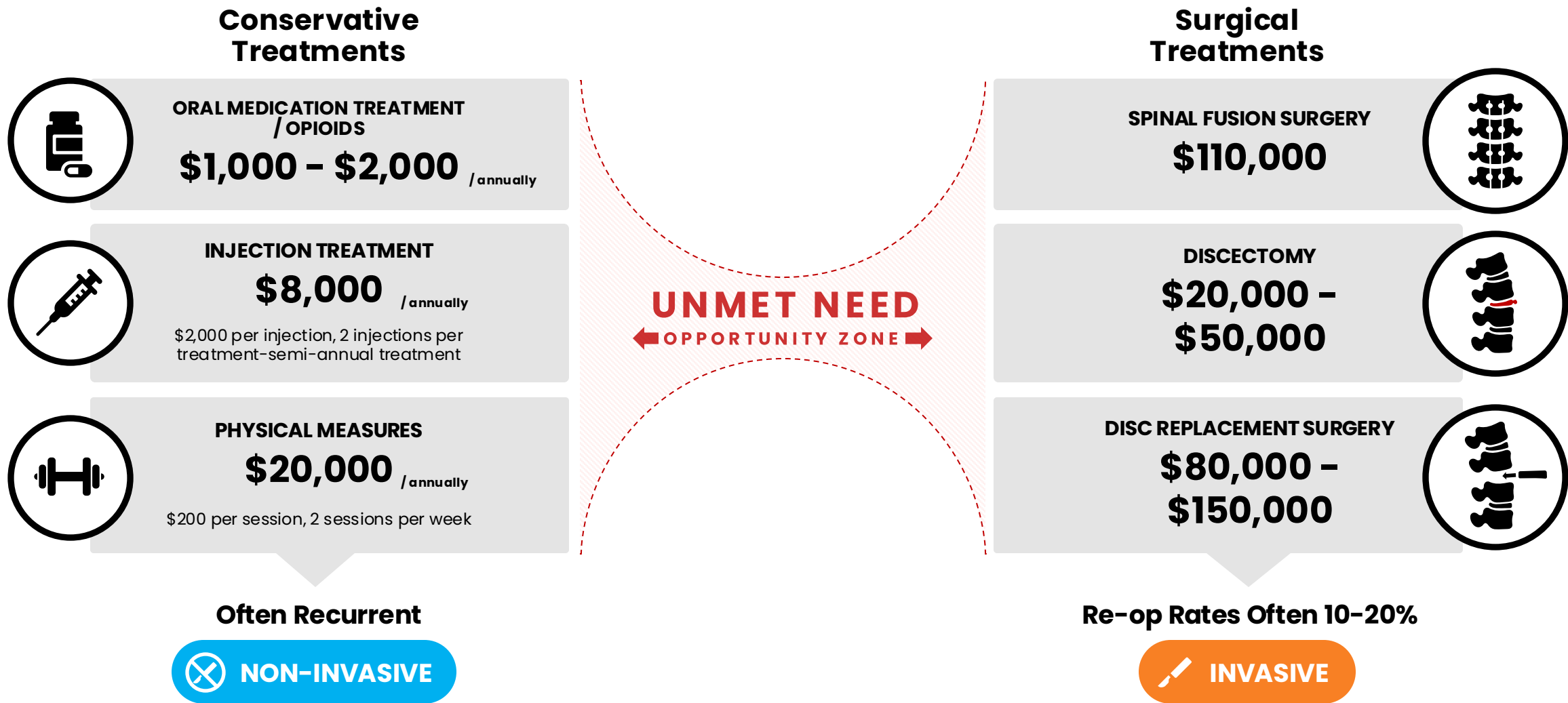
Americans suffering pain caused by a protruding or injured disc

2.5 M

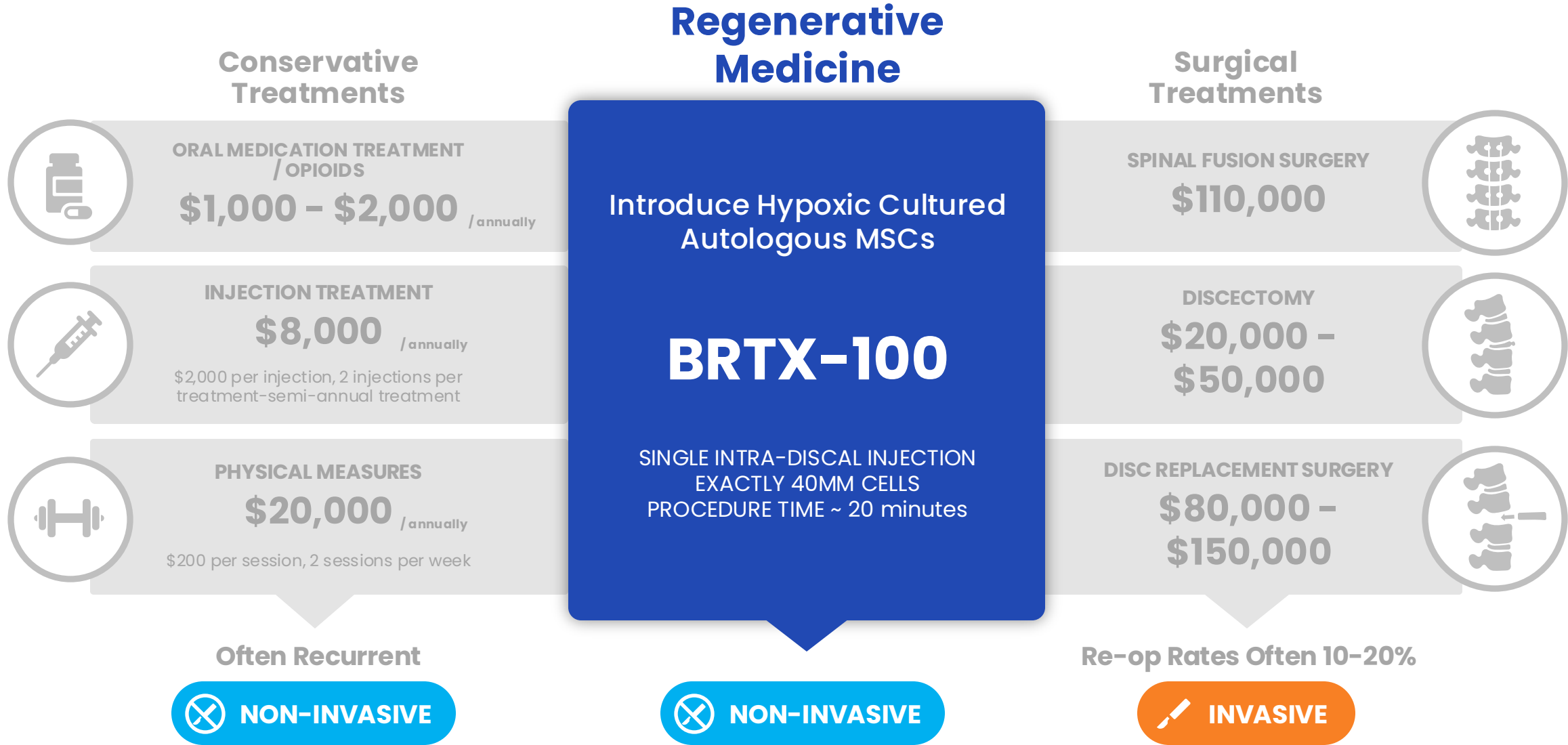
Invasive Surgical Procedures per year **\$40 billion** in surgeries




The Problem: Clinical & Economic



Our Solution: BTRX-100



BRTX-100: Clinical Snapshot

 Lead investigational therapeutic product



Autologous
(patient's own)
cell-based biologic



Hypoxic (low oxygen)
cultured, bone
marrow-derived



Single intradiscal injection
– anticipated 30 minute
in-office procedure



Prior human data provides
insight into the potential safety
and efficacy of BRTX-100



Ongoing FDA
authorized Phase 2
clinical trial



Large growing market
with few comparable
autologous therapies

BRTX-100: Key Differentiating Factors



SOURCE	Allogeneic uses human derived stem cells (not from patient) - 6 million	Autologous uses patients own stem cells - 40 million
CULTURING	Normoxic cultured with normal oxygen environment (~20%)	Hypoxic cultured in low oxygen environment (5%)
CARRIER	Hyaluronic Acid Carrier	Autologous Platelet Lysate Carrier & Adjuvant
MANUFACTURING	Animal Products Used	100% Animal-Free

BRTX-100 Advantages

- Autologous cells means low to no risk of rejection, greater safety profile (introduction of viral/genetic), potentially streamlined regulatory path
- Hypoxic culturing creates increased cell proliferation, greater plasticity, increased paracrine effect and increased cell survival after application
- Autologous platelet lysate provides growth factors that interact with the cells, allowing for better cell survival
- Low to no risk of safety concerns related to immunological and zoonotic (animal to people) transmission
- Strong runway for value creation with successful clinical results

BRTX-100: Positive Human Data

Human data from studies of therapies similar to BRTX-100 show reduced pain, increased function, and an absence of significant safety issues with a durable response

Centeno et al. *J Transl Med* (2017) 15:197
DOI 10.1186/s12967-017-1300-y

Journal of
Translational Medicine

RESEARCH

Open Access



Treatment of lumbar degenerative disc disease-associated radicular pain with culture-expanded autologous mesenchymal stem cells: a pilot study on safety and efficacy

Christopher Centeno^{1,2}, Jason Markle¹, Ehren Dodson^{2*}, Ian Stemper², Christopher J. Williams¹, Matthew Hyzy¹, Thomas Ichim³ and Michael Freeman⁴

Kumar et al. *Stem Cell Research & Therapy* (2017) 8:262
DOI 10.1186/s13287-017-0710-3

Stem Cell Research & Therapy

RESEARCH

Open Access



Safety and tolerability of intradiscal implantation of combined autologous adipose-derived mesenchymal stem cells and hyaluronic acid in patients with chronic discogenic low back pain: 1-year follow-up of a phase I study

Hemant Kumar^{1†}, Doo-Hoe Ha^{2†}, Eun-Jong Lee^{3†}, Jun Hee Park⁴, Jeong Hyun Shim⁴, Tae-Keun Ahn⁵, Kyoung-Tae Kim⁶, Alexander E. Ropper⁷, Seil Sohn¹, Chung-Hun Kim⁸, Devang Kashyap Thakor⁹, Soo-Hong Lee^{10*} and In-Bo Han^{1*}

Original Clinical Science—General



Intervertebral Disc Repair by Allogeneic Mesenchymal Bone Marrow Cells: A Randomized Controlled Trial

David C. Noriega, MD, PhD,¹ Francisco Ardura, MD, PhD,¹ Rubén Hernández-Ramajo, MD, PhD,¹ Miguel Ángel Martín-Ferrero, MD, PhD,¹ Israel Sánchez-Lite, MD,² Borja Toribio, MD,² Mercedes Alberca, PhD,³ Verónica García, PhD,³ José M. Moraleda, MD, PhD,⁴ Ana Sánchez, MD, PhD,⁵ and Javier García-Sancho, MD, PhD⁵

Stem Cells and Development > Vol. 28, No. 17 > Original Research Reports

The Traceability of Mesenchymal Stromal Cells After Injection Into Degenerated Discs in Patients with Low Back Pain

Helena Barreto Henriksson , Nikolaos Papadimitriou, Daphne Hingert, Adad Baranto, Anders Lindahl, and Helena Brisby

Anders Lindahl

Published Online: 23 Aug 2019 | <https://doi.org/10.1089/scd.2019.0074>

BRTX-100 in cLDD: Phase 2 Trial Design

FDA Cleared IND 17275:

Phase 2 Randomized, Controlled Study
Design in Patients with cLDD

Design

- Study includes 99 subjects (2:1 product to placebo)
- 40,000,000 cells/dose
- Included subjects will have only one symptomatic diseased disc

Primary Efficacy Endpoint

12 m, F/U at 24 m

Improvement in function:

at least 30% increase in function based on Oswestry Disability Index questionnaires (ODI)

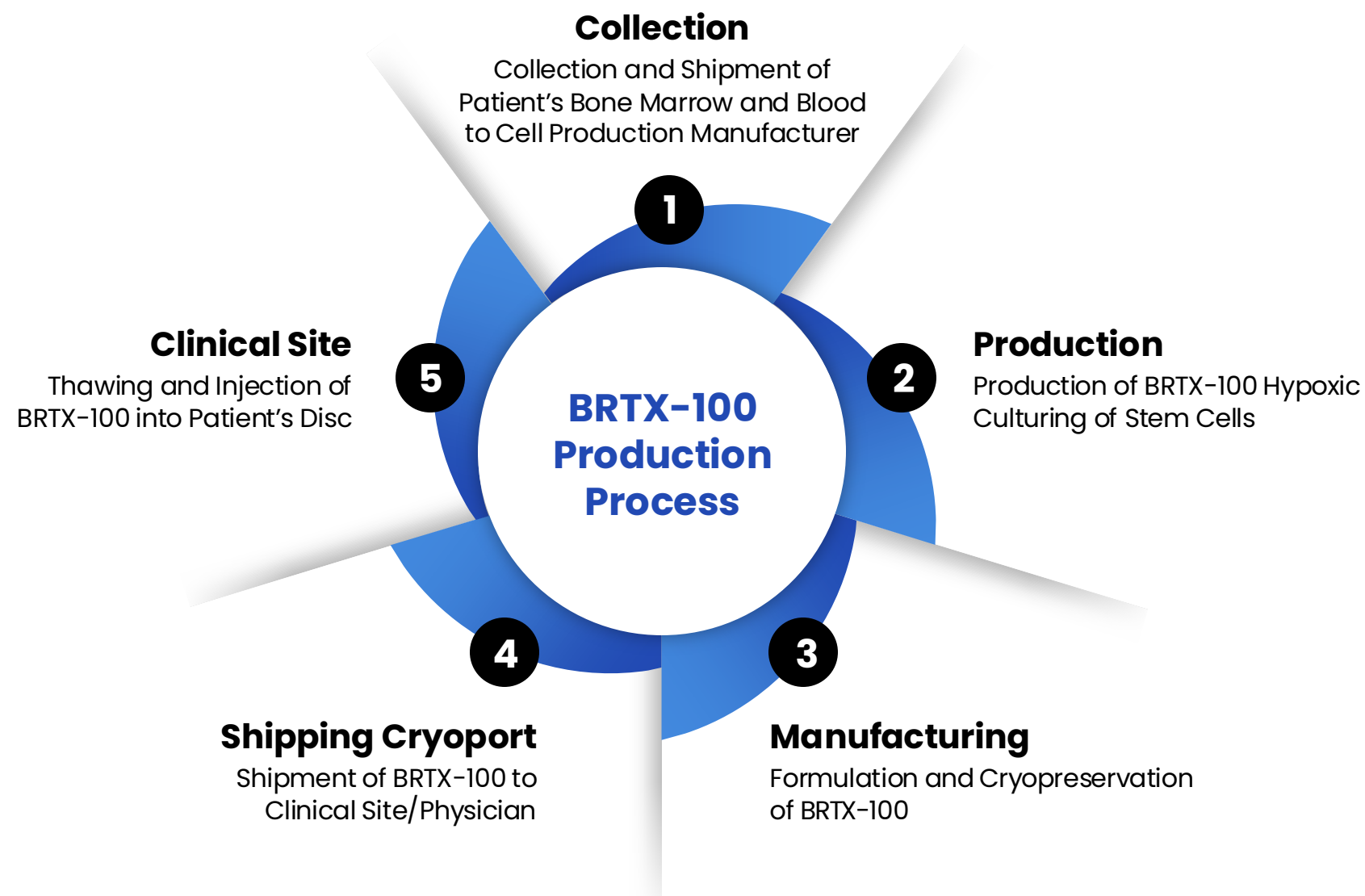
Reduction of pain:

at least 30% decreased in pain as measured using a Visual Analogue Scale (VAS)

Patient Population

- Subjects must have current diagnosis of cLDD, typical pain with degeneration of a single disc confirmed by history, exam, radiography, or other acceptable means
- Subjects will have exhausted previous conservative non-operative therapies

BRTX-100: Logistical /Clinical Process



BRTX-100: Cleared DSMB June 2023



Unanimous approval by the DSMB to continue trial without changes



BRTX-100 is safe and well tolerated



All 4 subjects successfully dosed with either 40 mil hMSCs or placebo



First time 40 million cells injected in a human subject



3:1 randomization



No Significant Adverse Events

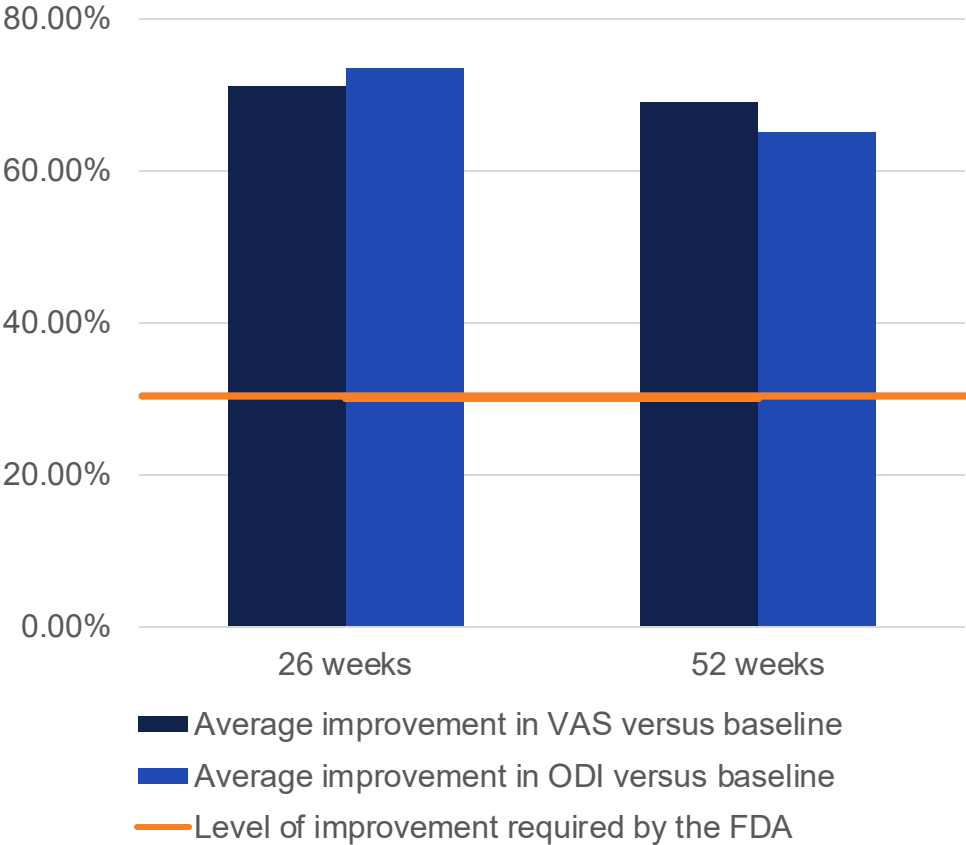


VAS, ODI, SF-12, RMDQ, and FRI scores to measure pain and function were collected



Opportunity to leverage this data and clinical package

Preliminary Phase 2 Clinical Data: Meaningful Signals



Presented at ORS 2025

52 week comparison of MRI images to baseline appear to demonstrate morphological changes, such as an increase in T2 signal (hydration), a decrease in protrusion size, as well as resolutions of annular tears, potentially demonstrating disc microenvironment remodeling

ThermoStem Program: **Allogeneic Cell-based Therapy**

Target Conditions: Obesity, Type 2 diabetes, and Metabolic disorders

Cell Type: Brown Fat

- Has been shown to regulate metabolic homeostasis in the body

Components of Library:

- Human Brown Adipose Tissue (BAT)
- White Adipose Tissue (WAT)
- Brown Adipose-derived Stem Cells (BADSC)

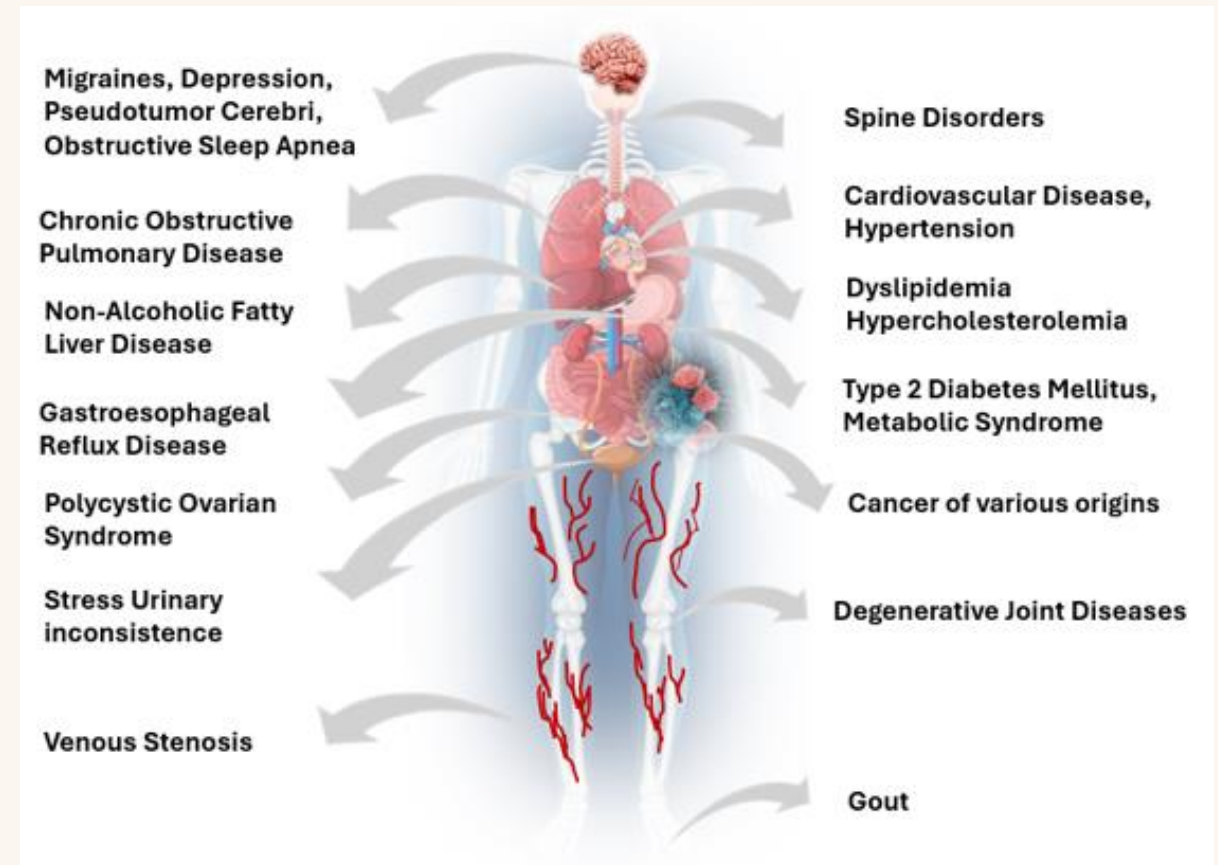
Initial Proof of Concept:

- ✓ Completed in small animal model

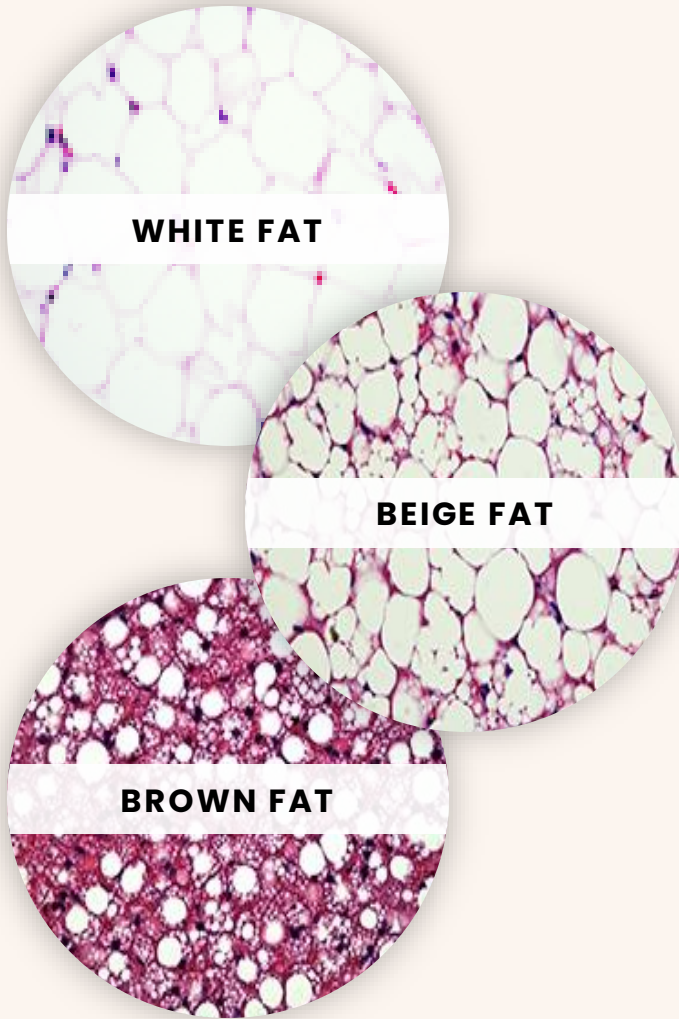
Patent Portfolio: Related BAT patent portfolio, including issued patents in the U.S., Australia and Japan

Platform Program:

For the development of cell & small molecule therapies



Metabolic Program **Highlights**



- ★ First human stem cell derived BAT transfer
- ★ Creation of first human 3D engineered artificial brown adipose tissue construct (aBAT)
- ★ Successful delivery of 3D aBAT construct in mouse model
- ★ Transplantation of aBAT lowered blood glucose levels
- ★ Transplantation of aBAT decreased weight in obese mice
- ★ Published initial proof of concept completed

Metabolic Program **Clinical Pathway**

File DMF with FDA

Expect filing a Drug Master File ("DMF") with the FDA to facilitate licensing opportunities around ThermoStem.


Pre-IND Meeting with FDA

Scheduling Pre-IND meeting with FDA to discuss first-in-man fast-track regulatory pathways.

Initiate Phase 1/2 Clinical Trial

Upon FDA approval commence Phase 1/2 clinical trial.

Our Opportunities are Well-Protected

PROGRAM		ThermoStem
INDICATION	Disc / Spine	Metabolic
PATENT TITLES	<ul style="list-style-type: none">• Methods and Compositions to facilitate repair of avascular tissue• Surgical Methods and Compositions to facilitate repair of avascular tissue• Therapeutic Delivery Device	<ul style="list-style-type: none">• Brown Fat Compositions and Methods• Human Brown Adipose Derived Stem Cells and Uses• Non-naturally occurring three-dimensional (3D) Brown Adipose-Derived Stem Cell aggregates and methods of generating and using the same
STATUS	4	26
NO. OF APPLICATIONS	2 Issued 2 Pending	23 Issued 3 Pending

Scientific Advisory Board

Wayne Marasco, MD, PDt
Chairman of SAB

- Principal Faculty Member of Harvard Stem Cell Institute
- Professor in the Department of Cancer Immunology & AIDS at the Dana-Farber Cancer Institute
- Professor of Medicine at Harvard Medical School

Jason Lipetz, MD
Chairman of SAB Sub Committee
Disc Advisory Board

- Chief of Spine Medicine for the Northwell Health Spine Center
- Founder of Long Island Spine Rehabilitation Medicine

Harvinder Sandhu, MD
Member Disc Advisory Board

- Orthopedic Spine Surgeon at the Hospital for Special Surgery
- Specializes in minimally invasive spine surgery, endoscopic spine surgery, microsurgery, computer-assisted surgery, and the study and use of spinal biologics

Wayne Olan, MD Clinical
Director of Regenerative Disc / Spine Program

- Board-certified Interventional Neuroradiologist
- Director of Endovascular and Minimally Invasive Neurosurgery at the George Washington University Medical Center

Christopher Plastaras, MD
Member Disc Advisory Board

- MossRehabs' Clinical Director of Musculoskeletal Spine & Sports Rehabilitation Medicine

Joy Cavagnaro, PhD
Member

- President and Founder of Access BIO, L.C.
- Previously positions with the FDA Center for Biologics Evaluation and Research (CBER), for a decade

Financial Summary

CURRENT CAPITALIZATION	SHARES
Common Shares Outstanding	8.6 Million*
Preferred Series B Shares Outstanding	Convertible to 1.4 Million Common**
Cash	\$ 9.1 Million**
Debt	\$0

* As of 05/13/2025; includes ~1.1 million common shares held in abeyance

** As of 03/31/2025

2024 and Recent Accomplishments

- ✓ Announced FDA clearance of important BRTX-100 clinical study protocol amendment (replaces saline injection with sham injection in control arm)
- ✓ Reported positive preliminary Phase 2 BRTX-100 study data (15 patient) in cLDD
- ✓ Received FDA Fast Track Designation for BRTX-100 in cLDD
- ✓ FDA cleared IND for Phase 2 BRTX-100 trial in cCDP
- ✓ Developed novel exosome-based biologic for obesity
- ✓ Expanded ThermoStem patents in U.S., Europe, Israel, and Japan
- ✓ Initiated discussions with an undisclosed commercial stage regenerative medicine company on potential ThermoStem IP licensing
- ✓ Announced commercial biocosmeceutical agreement with Cartessa
- ✓ Received expanded tissue license from New York State Dept. of Health



In Conclusion



cGMP ISO-7 Certified Clean room



Disruptive Platform Technologies in Cellular Therapy



Strong Preliminary Data Indicative of Positive Trial Outcomes



Active Phase 2 Trial in Spine



Addressing Multi-Billion Dollar Markets with Unmet Needs



Opportunity for Key Strategic Partnerships in Cosmetic Space



Strong Intellectual Property Protection



Experienced Management Team & Scientific Advisory Board



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