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): November 12, 2024

BioRestorative Therapies, Inc.

(Exact name of registrant as specified in its charter)

Nevada	**001-37603**	**30-1341024**
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

40 Marcus Drive Melville, New York	**11747**
(Address of principal executive offices)	(Zip code)

Registrant's telephone number, including area code (631) 760-8100

Not Applicable
(Former Name or Former Address, if Changed Since Last Report)

Securities registered pursuant to Section 12(b) of the Securities Exchange Act of 1934:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.0001 par value	BRTX	NASDAQ Capital Market

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 (see General Instruction A.2. below):

☐ 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))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter):

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 2.02. Result of Operations and Financial Condition.

On November 12, 2024, BioRestorative Therapies, Inc. (the "Company") issued a press release announcing its financial results for the third quarter ended September 30, 2024 (the "Financial Press Release"). The Financial Press Release also provided a business update and included details with regard to the conference call to be held to discuss the third quarter results and business update. A copy of the Financial Press Release is furnished as Exhibit 99.1 hereto.

The information contained in the Financial Press Release is summary information that should be considered in the context of the Company's filings with the Securities and Exchange Commission and other public announcements that the Company may make by press release or otherwise from time to time.

The information furnished with this Item 2.02, including Exhibit 99.1, shall not be deemed filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference into any other filing under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act, except as expressly set forth by specific reference in such a filing.

Item 7.01 Regulation FD Disclosure.

See Item 2.02 above.

On November 13, 2024, the Company issued a press release (the "Presentation Press Release") announcing that additional preliminary 26 and 52 week blinded data from the ongoing Phase 2 clinical trial of BRTX-100 in subjects with chronic lumbar disc disease would be presented by Francisco Silva, the Company's Vice President of Research and Development, at the Orthopaedic Research Society (ORS) Philadelphia Spine Research Society (PSRS) 7th International Spine Research Symposium, taking place November 10-14, 2024 in Skytop, Pennsylvania. The presentation took place on November 13, 2024. In the Presentation Press Release, the Company also announced that at the conference call to be held to discuss the Company's third quarter results and business update, the Company will also review the BRTX-100 presentation. A copy of the Presentation Press Release is furnished as Exhibit 99.2 hereto. At the symposium certain presentation materials (the "Presentation Materials") may be utilized by Mr. Silva. A copy of the Presentation Materials is furnished as Exhibit 99.3 hereto. The Company may use the Presentation Materials, possibly with modification, in other presentations to current and potential investors, lenders, creditors, insurers, vendors, customers, employees and others with an interest in the Company and its business

The information contained in the Presentation Press Release and the Presentation Materials is summary information that should be considered in the context of the Company's filings with the Securities and Exchange Commission and other public announcements that the Company may make by press release or otherwise from time to time.

The information in the Financial Press Release, the Presentation Press Release and the Presentation Materials is being furnished, not filed, pursuant to this Item 7.01. Accordingly, the information in the Financial Press Release, the Presentation Press Release and the Presentation Materials will not be incorporated by reference into any registration statement filed by the Company under the Securities Act unless specifically identified therein as being incorporated therein by reference. The furnishing of the information in this Current Report on Form 8-K with respect to the Financial Press Release, the Presentation Press Release and the Presentation Materials is not intended to, and does not, constitute a determination or admission by the Company that the information in this Current Report on Form 8-K with respect to the Financial Press Release, the Presentation Press Release and the Presentation Materials is material or complete, or that investors should consider this information before making an investment decision with respect to any security of the Company.

Item 9.01 **Financial Statements and Exhibits**.

(d) Exhibits.

Number	Description
99.1	Press release, dated November 12, 2024, issued by BioRestorative Therapies, Inc.
99.2	Press release, dated November 13, 2024, issued by BioRestorative Therapies, Inc.
99.3	Presentation Materials
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

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.

Company Name

Dated: November 13, 2024

By: /s/ Robert Kristal
Robert Kristal
Chief Financial Officer

Ex 99.1

BioRestorative Therapies Reports Third Quarter 2024 Financial Results and Provides Business Update

MELVILLE, N.Y., November 12, 2024 (GLOBE NEWSWIRE) -- BioRestorative Therapies, Inc. ("BioRestorative", "BRTX" or the "Company") (NASDAQ:BRTX), a regenerative medicine innovator focused on stem cell-based therapies and products, today reported financial results for the third quarter ended September 30, 2024 and provided an update on its business.

"We have continued to execute well across all areas of our business and are looking forward to continuing to update investors on our progress as we close out the remainder of 2024," said Lance Alstodt, BioRestorative's Chief Executive Officer. "From an operating perspective, we are thrilled with our third quarter results, as we are seeing initial progress on our path to sustainable profitability, driven by cost containment activities coupled with increased resources dedicated to our commercial programs."

Recent Highlights

DEVELOPMENT

- Last week, BioRestorative announced that it received a provisional license from the New York State Department of Health ("NYSDOH") for the processing of allogeneic (non-autologous) donor tissue material for the isolation, expansion and cryopreservation of various cell types, including stem cells, for medical research. Previously, the Company was licensed by the NYSDOH to act as a tissue bank for the processing of mesenchymal stem cells derived from autologous donors only.

Disc/Spine Program

- In a podium presentation scheduled for tomorrow morning, new preliminary 26–52 week blinded data from the ongoing Phase 2 clinical trial of BRTX-100 in subjects with chronic lumbar disc disease will be presented by Francisco Silva, Vice President of Research and Development, at the Orthopaedic Research Society (ORS) Philadelphia Spine Research Society (PSRS) 7th International Spine Research Symposium. BioRestorative will also make the data available through a public announcement.

- BioRestorative continues to work toward achieving completion of patient enrollment in the Phase 2 BRTX-100 study before the end of 2024.

Metabolic Program

- In September, the Company shared the details of its allogeneic, off-the-shelf ThermoStem® metabolic disease platform at IFATS 2024. BioRestorative believes that cell-based therapy candidates generated from its ThermoStem® program may allow for lower dosing, and while current GLP-1 based obesity drugs result in a loss of 20-40% lean muscle mass of total weight loss, pre-clinical studies have demonstrated that brown fat activation leads to positive effects on several organs, including heart, liver and muscle.

- In October, BioRestorative announced that the Israel Patent Office had issued a Notice of Allowance for a new patent application (Israeli Patent Appl. No. 287557) covering several fundamental aspects of the ThermoStem® platform. This, the 14th international patent to issue outside of the U.S. for the technology, covers non-naturally occurring three-dimensional brown adipose derived stem cell (BADSC) aggregates; an encapsulation system comprising the non-naturally occurring three-dimensional brown adipose derived stem cell aggregates; a method of making a non-naturally occurring three-dimensional brown adipose derived stem cell aggregate; and a method of treating a patient with a disorder.

- The Company's previously reported substantive discussions with an undisclosed commercial stage regenerative medicine company with regard to a potential license of BioRestorative's ThermoStem® metabolic intellectual property are continuing; however, no assurances can be given that a license agreement will be entered into whether on commercially reasonable terms or otherwise.

COMMERCIAL

BioCosmeceuticals

- BioRestorative derived $230,700 in product revenue from its exclusive supply agreement with Cartessa Aesthetics, LLC in the third quarter.

Summary Third Quarter 2024 Results

For the quarter ended September 30, 2024, the Company had a loss from operations of $2.3 million, a 26% year-over-year improvement from $3.1 million for the comparable period of 2023, and a 9% improvement sequentially from $2.5 million in the second quarter of 2024.

The Company's net loss for the 2024 third quarter was $1.1 million, or $0.13 per share.

The Company ended the third quarter in a very strong financial position, with cash, cash equivalents, and investments held in marketable securities of $13.1 million, with no outstanding debt, as of September 30, 2024.

For complete financial results, please see BioRestorative's filings at www.sec.gov, and on the Company's website at www.biorestorative.com under "SEC Filing" in the Investors and Media section.

November 13, 2024 Conference Call Details

BioRestorative management will host a webcasted conference call with an associated slide presentation at 4:30pm EST on Wednesday, November 13, 2024 to review its third quarter 2024 financial results and provide a business update, as well as to review the BRTX-100 presentation. To join the conference call via phone and participate in the live Q&A session tomorrow, please dial 877-545-0320 (United States) or 973-528-0002 (International), participant access code 823128. The live webcast (with slides) and audio archive of the presentation may be accessed on the investor section of the BioRestorative website at https://www.biorestorative.com/investor-relations. An archived replay will be available for approximately 90 days following the event.

About BioRestorative Therapies, Inc.

BioRestorative (www.biorestorative.com) develops therapeutic products using cell and tissue protocols, primarily involving adult stem cells. As described below, our two core clinical development programs relate to the treatment of disc/spine disease and metabolic disorders, and we have also recently begun offering BioCosmeceutical products:

• Disc/Spine Program (brtxDISC™): Our lead cell therapy candidate, BRTX-100, is a product formulated from autologous (or a person's own) cultured mesenchymal stem cells collected from the patient's bone marrow. We intend that the product will be used for the non-surgical treatment of painful lumbosacral disc disorders or as a complementary therapeutic to a surgical procedure. The BRTX-100 production process utilizes proprietary technology and involves collecting a patient's bone marrow, isolating and culturing stem cells from the bone marrow and cryopreserving the cells. In an outpatient procedure, BRTX-100 is to be injected by a physician into the patient's damaged disc. The treatment is intended for patients whose pain has not been alleviated by non-invasive procedures and who potentially face the prospect of surgery. We have commenced a Phase 2 clinical trial using BRTX-100 to treat chronic lower back pain arising from degenerative disc disease.

• Metabolic Program (ThermoStem®): We are developing cell-based therapy candidates to target obesity and metabolic disorders using brown adipose (fat) derived stem cells ("BADSC") to generate brown adipose tissue ("BAT"), as well as exosomes secreted by BADSC. BAT is intended to mimic naturally occurring brown adipose depots that regulate metabolic homeostasis in humans. Initial preclinical research indicates that increased amounts of brown fat in animals may be responsible for additional caloric burning as well as reduced glucose and lipid levels. Researchers have found that people with higher levels of brown fat may have a reduced risk for obesity and diabetes. BADSC secreted exosomes may also impact weight loss.

• BioCosmeceuticals: We operate a commercial BioCosmeceutical platform. Our current commercial product, formulated and manufactured using our cGMP ISO-7 certified clean room, is a cell-based secretome containing exosomes, proteins and growth factors. This proprietary biologic serum has been specifically engineered by us to reduce the appearance of fine lines and wrinkles and bring forth other areas of cosmetic effectiveness. Moving forward, we also intend to explore the potential of expanding our commercial offering to include a broader family of cell-based biologic aesthetic products and therapeutics via Investigational New Drug (IND)-enabling studies, with the aim of pioneering U.S. Food and Drug Administration (FDA) approvals in the emerging BioCosmeceuticals space.

Forward-Looking Statements

This press release contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and such forward-looking statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. You are cautioned that such statements are subject to a multitude of risks and uncertainties that could cause future circumstances, events or results to differ materially from those projected in the forward-looking statements as a result of various factors and other risks, including, without limitation, those set forth in the Company's latest Form 10-K, as amended, filed with the Securities and Exchange Commission. You should consider these factors in evaluating the forward-looking statements included herein, and not place undue reliance on such statements. The forward-looking statements in this release are made as of the date hereof and the Company undertakes no obligation to update such statements.

CONTACT:

Stephen Kilmer
Investor Relations
Direct: (646) 274-3580
Email: skilmer@biorestorative.com

Ex 99.2

BioRestorative Therapies Reports Positive Preliminary Phase 2 BRTX-100 *Clinical Data*

– Blinded preliminary data demonstrate a positive trend and clear signal in Primary and Secondary endpoints –

– Patient reported efficacy outcomes show a material decrease in pain and increase in function –

– If positive trends continue, Company confident that the Phase 2 trial will meet its Primary and Secondary end points -

– The blinded preliminary BRTX-100 data to be described in a podium presentation this morning at the ORS PSRS 7th International Spine Research Symposium –

– Webcasted conference call also scheduled for today at 4:30pm EST –

MELVILLE, N.Y., November 13, 2024 (GLOBE NEWSWIRE) -- BioRestorative Therapies, Inc. ("BioRestorative", "BRTX" or the "Company") (NASDAQ:BRTX), a clinical stage regenerative medicine innovator focused on stem cell-based therapies and products, today announced new preliminary 26–52 week blinded data from the first 10 patients with chronic lumbar disc disease ("cLDD") enrolled in the ongoing Phase 2 clinical trial of BRTX-100.

BRTX-100, a novel cell-based therapeutic engineered to target areas of the body that have little blood flow, is the Company's lead clinical candidate. The safety and efficacy of BRTX-100 in treating cLDD is being evaluated in a Phase 2, prospective, randomized, double-blinded and controlled study. A total of up to 99 eligible subjects will be enrolled at up to 16 clinical sites in the United States. Subjects included in the trial will be randomized 2:1 to receive either BRTX-100 or placebo.

No serious adverse events (SAEs) were reported in any of the 10 safety run-in subjects. Notably, there was also no dose ($40X10^6$ cells) limiting toxicity at 26-52 weeks.

In addition to the aforementioned preliminary primary safety endpoint data, the Company reported blinded clinical data on the secondary efficacy endpoint of at least a 30% decrease in pain as measured on the Visual Analog Scale ("VAS") and at least a 30% increase in function based on the Oswestry Disability Index ("ODI") at week 52. The blinded preliminary efficacy endpoint data demonstrated:

- At 26 weeks, 70% of subjects (n=10) reported a >30% improvement in VAS versus baseline;
- At 52 weeks, 100% of subjects (n=4) reported a >30% improvement in VAS versus baseline (n=4);
- At 12 and 26 weeks, 70% of subjects (n=10) had a >30% improvement in ODI versus baseline;
- At 52 weeks, 100% of subjects (n=4) had a >30% improvement in ODI versus baseline; and

- At 26 weeks, 70% of subjects (n=10) reported a >30% decrease in pain (VAS) and a >30% increase in function (ODI).

"Blinded preliminary clinical data of safety and efficacy endpoints from the ongoing Phase 2 clinical trial of BRTX-100 in the treatment of cLDD are very encouraging, with patient reported pain and function outcomes demonstrating a positive trend," said Lance Alstodt, Chief Executive Officer of BioRestorative. "Most importantly, at 26 weeks 70% of the patients are reporting a greater than 30% increase in function and a more than 30% decrease in pain. If data continues with this trend, we are confident that we will hit our efficacy end points for the Phase 2 trial."

This new blinded preliminary safety and efficacy data from the ongoing Phase 2 clinical trial of BRTX-100 will be described in podium presentation later today at the Orthopaedic Research Society (ORS) Philadelphia Spine Research Society (PSRS) 7th International Spine Research Symposium, taking place in Skytop, Pennsylvania. BioRestorative management will also host a webcasted conference call with an associated slide presentation today at 4:30pm EST to review the BRTX-100 data, as well as review its third quarter 2024 financial results and provide a business update.

Conference Call & Webcast Details

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Ex 99.3


biorestorative
therapies
ORS PSRS 7th International Spine Research Symposium
November 2024
Francisco Silva
Vice President of Research and Development
brt
discx
Nasdaq: BRTX

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.

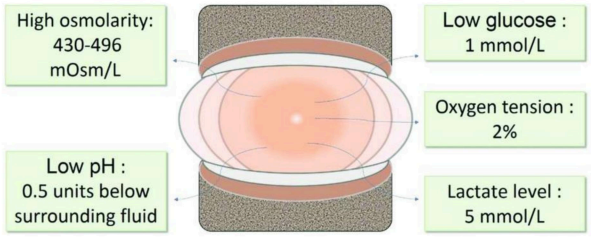
Forward-looking statements involve known and unknown risks, uncertainties and other important factors that could cause our actual results, performance or achievements, business plan or industry results, to differ materially from our expectations of future results, performance or achievements expressed 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.

Disc Microenvironment

- **Avascular**: The IVD is avascular, meaning the nearest blood vessel can be up to 8 mm away. This makes it difficult to transport nutrients and waste.
- **Hypoxic**: The IVD has low oxygen tension, with an average concentration of around 2%.
- **Acidic**: The pH level in a healthy disc is around 0.5 pH units lower than the surrounding fluids.
- **Nutrient gradient**: The center of the IVD has low glucose and high lactic acid levels.
- **Inflammatory**: A sustained inflammatory response can worsen the microenvironment, leading to more inflammation and ECM degradation.
- **Biomechanical**: The IVD is restricted by biomechanics.



Lyu, Feng-Juan. (2022). Impact of Microenvironmental Changes during Degeneration on Intervertebral Disc Progenitor Cells: A Comparison with Mesenchymal Stem Cells. Bioengineering. 9. 148. 10.3390/bioengineering9040148.

Targeting Disc Microenvironment

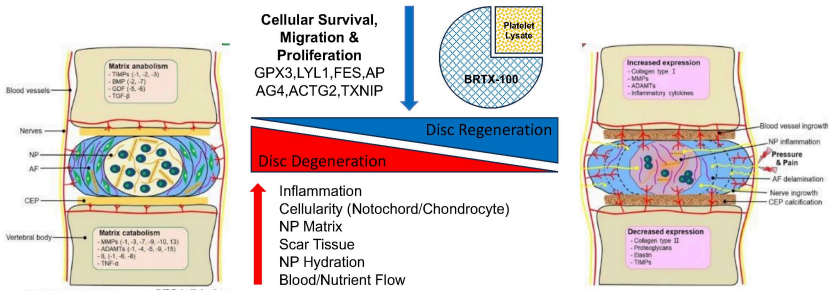
HYPOXIA

⬆ NP Cellularity Notochord/Chondrocyte Cells
Sox9,ACAN,BGLAP,ALPL,KRT19,BARX1,MDFI,DCHS1,TGFB3, BMP-4,GDF-5,VEGF

⬆ Vasculogenesis & Angiogenesis
VEGF,FGF1,TGFB1,MDK ,GRN,SPHK1,Desmin,RASIP1,LYL1,TXNIP,FES

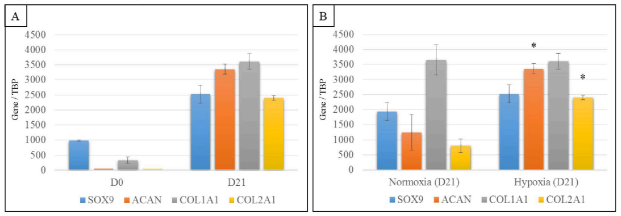
⬇ Inflammation & Poorly Immunogenic
SFN,TNFAIP6,Low CXCL5, Low chemokines

⬆ Tissue Remodeling & Regeneration
SFN,DES,ACAN,TIMP 1/3,ADAMTS4,MMP2, ANKH

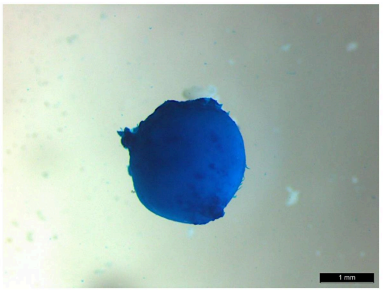


BRTX-100 Hypoxic BM-MSCs

Figure 1. Chondrocyte Differentiation



Expression of SOX9, Aggrecan (ACAN), Collagen Type I Alpha 1 Chain (COL1A1) and Collagen Type II Alpha 1 Chain (COL2A1) by qPCR. A) Hypoxic cultured bone marrow derived mesenchymal stem cells (HC-BMMSCs) at day 0 (D0, undifferentiated) and 21 days after chondrocyte differentiation (D21). B) HC-BMMSC versus Normoxic cultured-BMMSC 21 days after chondrocyte differentiation. Data represent mean +/- SEM (n = 3 donor-matched hypoxic and normoxic samples).



BRTX-100 Hypoxic BM-MSCs

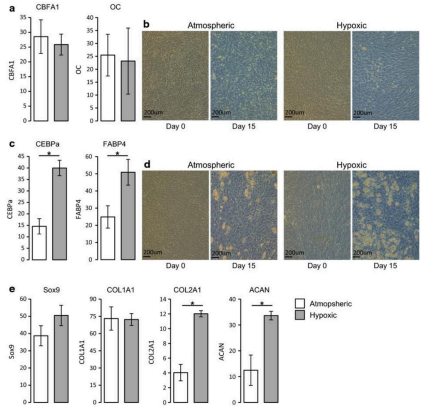
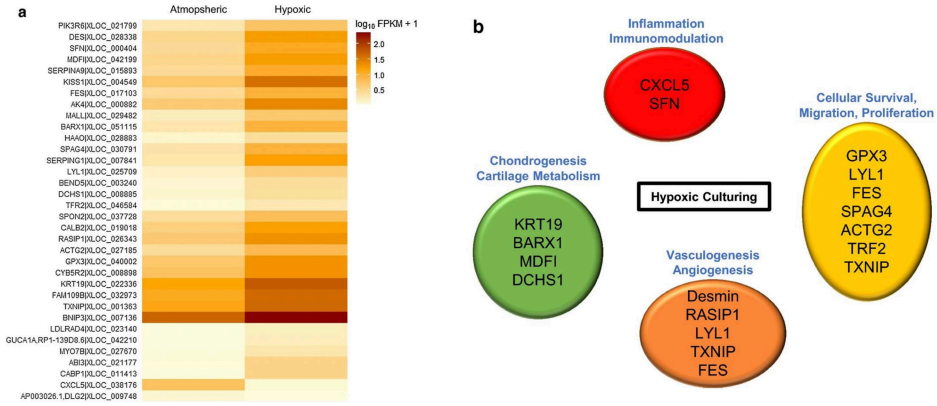


Table 1. Chondrogenic Growth Factor and Notochord Transcripts Expressed by HC-BMMSCs

	Hypoxia (H)	Normoxia (N)	Fold Difference
Human Notochord Markers	Value (FPKM)	Value (FPKM)	H versus N
KRT19	57.12	14.18	4.03
KRT18	40.21	14.57	2.76
LGALS3 (GLA3/Galectin-3)	105.20	88.64	1.19
CD55	3.47	4.67	-1.35
BASP1	109.85	111.65	-1.02
CTGF	262.25	260.07	1.01
CA12	100.51	88.61	1.13
ANXA2	2619.54	2616.84	1.00
Growth Factors Involved in Chondrogenesis			
TGFB3	2.01	3.09	-1.53
FGF-2	1.35	2.37	-1.76
BMP-4	5.68	8.00	-1.41
GDF-5	42.63	38.47	1.11
PTHLH (PTHrP)	2.19	0.92	2.38
VEGF	97.95	90.91	1.08

Gene expression by RNA sequencing of donor matched HC-BMMSC and NC-BMMSC. FPKM (Fragments Per Kilobase of Exon Per Million Fragments Mapped). HC-BMMSCs are presented in the "hypoxia" column and are compared to cells cultured under normoxic conditions. The FPKM value cut off for transcripts expression is set to values superior or equal to 1 (any value under 1 is considered not expressed). n = 3 donor-matched hypoxic and normoxic samples.

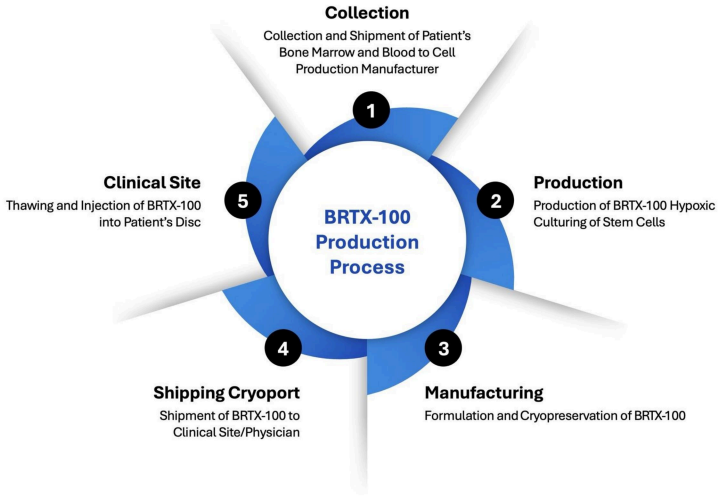
BRTX-100 Hypoxic BM-MSCs



Phase 2 Clinical Trial – BRTX-100/IND 17275

- **A Phase 2, Double-Blind, Sham-Controlled, Randomized Study to Evaluate the Safety and Preliminary Efficacy of a Single Dose Intradiscal Injection of BRTX-100 for Patients with Chronic Lumbar Disc Disease (cLDD)**
  - BRTX-100 ($40x10^6$/1.5cc)
    - Hypoxic preconditioned
    - Targeted to avascular zones
  - 99 Subjects randomized 2:1
  - 16 active U.S. clinical sites U.S

Phase 2 Clinical Trial – BRTX-100/IND 17275



Phase 2 Clinical Trial – BRTX-100/IND 17275

- **Double-blind, sham-controlled, randomized study with blinded assessments using a single dose.**
  - BRTX-100 ($40x10^6$/1.5cc)
- **Primary Objective: Safety**
  - To investigate the safety of a single dose of BRTX-100 via intradiscal injection in patients with chronic lumbar disc disease

Measured by the following Endpoints

- ❖ Report of adverse events (AEs), clinical review and questionnaires for pain, disability and quality of life at Baseline, **Week 2, Week 12, Week 26, Week 52**, and **Week 104**
- ❖ Vital Signs
- ❖ Physical Examination
- ❖ Laboratory Evaluation (hematology and chemistry)
- ❖ Clinical review of MRI changes from Baseline to Week 104 (MRI density measurements in T2 weighted images performed at Baseline, Week 52 and Week 104)

Phase 2 Clinical Trial – BRTX-100/IND 17275

- **Secondary Objective:**
  - To investigate the preliminary efficacy of single dose of BRTX-100 delivered via intradiscal injection in patients with chronic lumbar disc disease
- **Preliminary Primary Efficacy Endpoint**
  - **Clinical Response at Week 52**
    - At least a ***30% decrease in pain*** as measured on the VAS – Pain scale

      AND
    - At least a ***30% increase in function*** based on the Oswestry Disability Index

- **Secondary Efficacy Endpoints**
  - **Clinical Response** at Weeks 26 and 104
  - **VAS – Pain:** Δ from BL in pain based at Weeks 2, 12, 26, 52 and 104
  - **ODI:** Δ from BL in function at Weeks 2, 12, 26, 52 and 104
  - **RMDQ:** Δ from BL in function at Weeks 2, 12, 26, 52 and 104
  - **FRI:** Δ from BL in function at Weeks 2,12, 26, 52 and 104
  - **SF-12v2:** Δ from BL in quality of life at Weeks 2, 12, 26, 52 and 104

Phase 2 Clinical Trial – BRTX-100/IND 17275

- **Inclusion Criteria:**
  - High index of suspicion **degenerative disc disease** (DDD)/**discogenic pain**
    - Chronic lower back pain for at least 6 mos
    - Failure of at least 6 mos of conservative back pain care
    - Modified Pfirrmann score of 2 to 7 on MRI, may contain a contained protrusion and/or annular tear on MRI
    - Modic Grade I or II changes, or no change on MRI
    - Maintained intervertebral disc heights of at least 50% on MRI
    - Screening score of ≥ 40 mm and ≤ 80 mm on low back pain VAS
    - Screening Oswestry Disability Index score ≥ 30 and < 90 on a 100-point scale

- **Exclusion Criteria:**
  - High index as relating to underlying spine pathology
    - Acute or chronic **L/S spine fracture**
    - Clinically significant nerve or sacroiliac joint pain
    - Clinically significant facet pain as determined by a diagnostic medial branch block or facet joint injection
    - **Disc extrusions, sequestered frags, facet cysts, > moderate stenosis**
    - **Grade V annular fissure** **Modified Pfirrmann Grade 8**
    - **Previous L/S spine surgery** or **therapeutic percutaneous disc intervention**
    - Previous **treatment with cellular or biological investigational therapy or device**

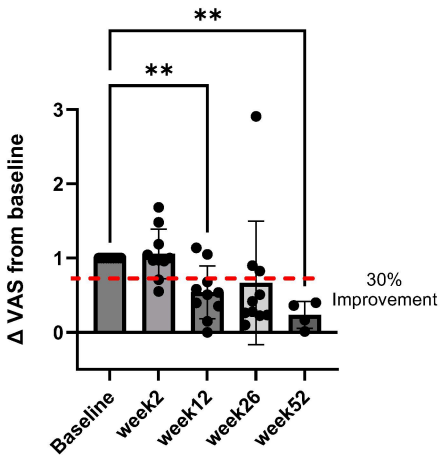
Phase 2 Clinical Trial – BRTX-100/IND 17275 Adverse Events

- **<u>No serious adverse events (SAEs) in any of the 10 safety run-in subjects</u>**
- 9 adverse events (AEs) in 3 of the 10 safety run-in subjects
  - 5 AEs (2 subjects) related to treatment
    - 3 episodes of increased post-procedural back pain in 2 subjects
    - 2 MRI changes (worsening disc protrusion, acute Modic Type II changes) in 1 subject
  - 4 AEs (1 subject) unrelated to treatment
    - Ulnar nerve entrapment, trigger thumbs, trigger finger, non-alcoholic fatty liver disease in 1 subject

Good safety profile demonstrated in the first 10 subjects enrolled, passed DSMB safety review

Phase 2 Clinical Trial – BRTX-100/IND 17275 VAS

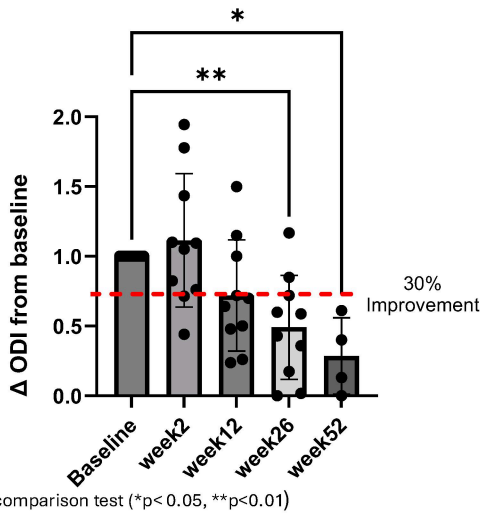
- At 26 weeks 70% of patients report > 30% improvement VAS score (n=10).
- At 52 weeks 100% of patients report > 30% Improvement VAS score (n=4)



Mixed-effects analysis, with Geisser-Greenhouse correction and Dunnett's multiple comparison test (**p<0.01)

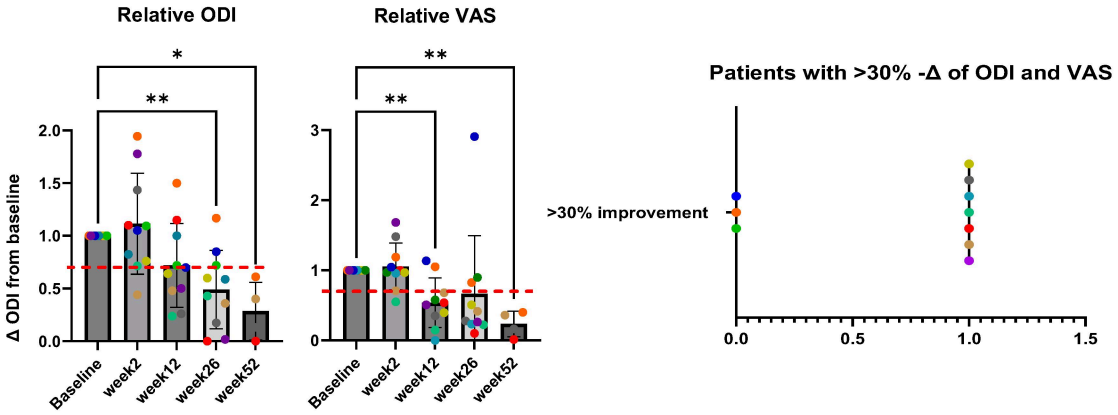
Phase 2 Clinical Trial – BRTX-100/IND 17275 ODI

- At 12 & 26 weeks 70% of patients had >30% improvement in reported ODI from their baseline (n=10).
- At 52 weeks all patients reported greater than 30% improvement in reported ODI (n=4)



Mixed-effects analysis, with Geisser-Greenhouse correction and Dunnett's multiple comparison test (*p< 0.05, **p<0.01)

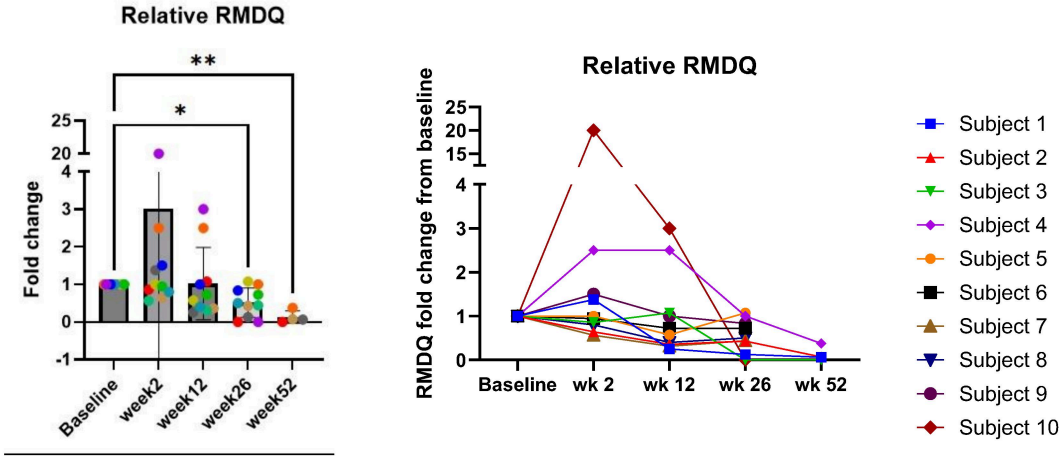
Phase 2 Clinical Trial – BRTX-100/IND 17275



100% correlation between patients with a >30% improvement in ODI and a 30% improvement in VAS at 26 weeks (n=10)

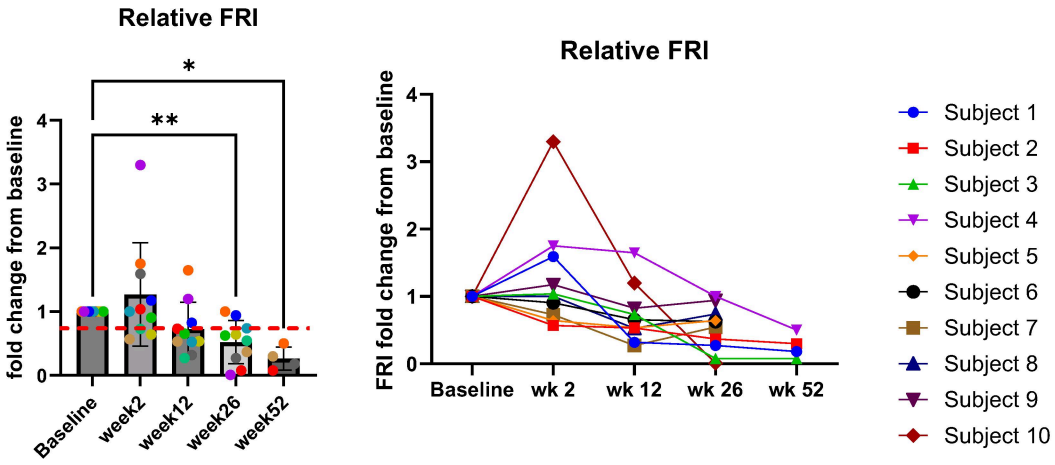
Mixed-effects analysis, with Geisser-Greenhouse correction and Dunnett's multiple comparison test (*p< 0.05, **p<0.01)

Phase 2 Clinical Trial – BRTX-100/IND 17275 RMDQ



Mixed-effects analysis, with Geisser-Greenhouse correction and Dunnett's multiple comparison test (*p< 0.05, **p<0.01)

Phase 2 Clinical Trial – BRTX-100/IND 17275 FRI



Mixed-effects analysis, with Geisser-Greenhouse correction and Dunnett's multiple comparison test (*p< 0.05, **p<0.01)

Phase 2 Clinical Trial – BRTX-100/IND 17275

- **Preliminary Safety End Points**
  - **Blinded clinical data of a single dose of BRTX-100 ($40x10^6$) is well tolerated with no SAE or dose limiting toxicity at 26-52 weeks (n=10)**
- **Preliminary Efficacy End Points**
  - **Blinded clinical data of preliminary efficacy end points is encouraging**
    - **VAS and ODI 30% changes compared to baseline (MCID/Efficacy end point target)**
    - **70% response rate trend**
- **Potential interim analysis at 26 weeks to assess safety and preliminary efficacy end points**
- **Expansion of BRTX-100 to include cervical indications**