### UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, DC 20549

### FORM 8-K

### CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report: August 30, 2019 (Date of earliest event reported)

### BIORESTORATIVE THERAPIES, INC.

(Exact Name of Registrant as Specified in Charter)

Delaware	000-54402	91-1835664		
(State or Other Jurisdiction of Incorporation)	(Commission File No.)	(IRS Employer Identification Number)		
40 Marcus Drive, Melville, New York		11747		
(Address of Principal Executive Offices	)	(Zip Code)		
Registrant's telephone number, including area code: (631) 760-8100				
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:				
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 [X]		

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.  $\Box$ 

### Item 5.07

### Submission of Matters to a Vote of Security Holders.

On August 30, 2019, BioRestorative Therapies, Inc. (the "Company") held a Special Meeting of Stockholders (the "Special Meeting"). The following is a listing of the votes cast for and against, as well as abstentions, with respect to the matters voted upon at the Special Meeting. At the Special Meeting, the Company's stockholders (i) approved the Securities Purchase Agreement between the Company and Arena Investors LP, dated as of July 26, 2019, and the transactions contemplated thereby; and (ii) approved the Amended and Restated Exchange Agreements between the Company and each of John M. Desmarais and Tuxis Trust, dated as of July 26, 2019.

1. Approval of the Securities Purchase Agreement between the Company and Arena Investors LP, dated as of July 26, 2019, and the transactions contemplated thereby:

For	9,865,381
Against	34,178
Abstentions	1,721
Broker Non-Votes	-0-

2. Approval of the Amended and Restated Exchange Agreements between the Company and each of John M. Desmarais and Tuxis Trust, dated as of July 26, 2019:

For	9,864,013
Against	34,979
Abstentions	2,288
Broker Non-Votes	-0-

### Item 7.01 Regulation FD Disclosure.

The Company has prepared presentation materials (the "<u>Presentation Materials</u>") that management intends to use from time to time on and after September 6, 2019 in presentations about the Company's business. The Company may use the Presentation Materials in 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 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 Presentation Materials speak as of the date of this Current Report on Form 8-K. While the Company may elect to update the Presentation Materials in the future to reflect events and circumstances occurring or existing after the date of this Current Report on Form 8-K, the Company specifically disclaims any obligation to do so. The Presentation Materials are furnished as Exhibit 99.1 to this Current Report on Form 8-K and are incorporated herein by reference. The presentation materials will also be posted in the Investor Relations section of the Company's website, www.biorestorative.com for 90 days.

The information referenced under Item 7.01 (including Exhibit 99.1 referenced in Item 9.01 below) of this Current Report on Form 8-K is being "furnished" under "Item 7.01. Regulation FD Disclosure" and, as such, shall not be deemed to be "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section. The information set forth in this Current Report on Form 8-K (including Exhibit 99.1 referenced in Item 9.01 below) shall not be incorporated by reference into any registration statement, report or other document filed by the Company pursuant to the Securities Act of 1933, as amended (the "Securities Act"), except as shall be expressly set forth by specific reference in such filing.

### Item 3.02 Unregistered Sales of Equity Securities.

Between August 30, 2019 and September 3, 2019, the Company repaid certain outstanding promissory notes in the aggregate amount of \$262,076, inclusive of accrued interest and prepayment premiums.

On August 30, 2019, the Company issued convertible promissory notes in the aggregate principal amount of \$470,000 for aggregate cash proceeds of \$420,000. The convertible notes bear interest at the rate of 12% per annum payable at maturity with original maturity dates in August 2020. The convertible notes and respective accrued interest are convertible into shares of the Company's common stock at the election of the respective holders at a fixed price of \$1.00 per share for the first six months following the respective issue date, and thereafter at a conversion price generally equal to 58% of the fair value of the Company's stock, subject to adjustment, until the respective notes have been paid in full.

Between September 3, 2019 and September 4, 2019, the Company issued an aggregate of 613,143 shares of common stock of the Company in exchange for outstanding indebtedness in the aggregate amount of \$72,953, inclusive of accrued and unpaid interest.

For each of the securities issuances, the Company relied upon Section 4(a)(2) of the Securities Act as transactions by an issuer not involving any public offering or Section 3(a)(9) of the Act as a security exchanged by an issuer with its existing security holders exclusively where no commission or other remuneration is paid or given directly or indirectly for soliciting such exchange. For each such transaction, the Company did not use general solicitation or advertising to market the securities, the securities were offered to a limited number of persons, the investors had access to information regarding the Company (including information contained in the Company's Annual Report on Form 10-K for the year ended December 31, 2018, Quarterly Reports on Form 10-Q for the periods ended March 31, 2019 and June 30, 2019 and Current Reports on Form 8-K filed with the Securities and Exchange Commission, and press releases made by the Company), and management of the Company was available to answer questions from prospective investors. The Company reasonably believes that each of the investors is an accredited investor.

### Item 9.01 Financial Statements and Exhibits.

(d) <u>Exhibits</u>.

99.1 Presentation Materials.

### **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.

Dated: September 6, 2019

### BIORESTORATIVE THERAPIES, INC.

By: /s/ Mark Weinreb
Mark Weinreb
Chief Executive Officer



### DISCLAIMER AND CAUTIONARY NOTE ON 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 SUMMARY, 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 DATE OF HIS PRESENT AT 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, SUBSTANTIAL LOSSES SINCE INCEPTION, AND SUBSTANTIAL WORKING CAPITAL DEFICIENCY AND STOCKHOLDERS' DEFICIENCY, (II) OUR ABILITY TO TIMELY AND SUCCESSFULLY DEVELOP AND COMMERCIALIZE BRIX-100, OUR LEAD PRODUCT CANDIDATE FOR THE TREATMENT OF CHRONIC LUMBARD DISC DISEASE; (IV) DELAYS IN ENROLLING PATIENTS IN OUR CLINICAL TRIALS, (V) DISRUPTION TO OUR ACCESS TO THE MEDIA (INCLUDING PATIENTS IN OUR CLINICAL TRIALS, (V) DISRUPTION TO 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 (VI) OUR ACCESS TO THE WIND RESULTS 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 IMPRACT THE PUBLIC PERCEPTION OF OUR PRODUCT CANDIDATES; (VII) OUR LIACK OF MANUFACTURING SUPPRODUCT SAND/OR SERVICES; (XI) OUR LIMITED EXPERIENCE IN THE DEVELOPMENT AND MARKETING OF CELL THERAPY BY A SECURITY OF THE PUBLIC PERCEPTION OF OUR PRODUCT SAND/OR SERVICES; (XI) OUR LIMITED EXPERIENCE IN THE DEVELOPMENT AND MARKETING OF CELL THERAPPES; (XI) OUR LIMITED EXPERIENCE IN THE DEVELOPMENT AND MARKETING OF CELL THERAPPES; (XI) OUR INABILITY TO DOTAIN REIMBURSEMENT FOR OUR PRODUCT SAND/OR SERVICES; (XI) OUR INMIBILITY TO OBTAIN REIMBURSEMENT FOR OUR PRO

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 PROVET OR BEINCORRECT.

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.

THE COMPANY HAS NO OBLIGATION TO UPDATE ANY INFORMATION SET FORTH IN THIS PRESENTATION EXCEPT TO THE EXTENT REQUIRED BY LAW.



### **EXECUTIVE SUMMARY**

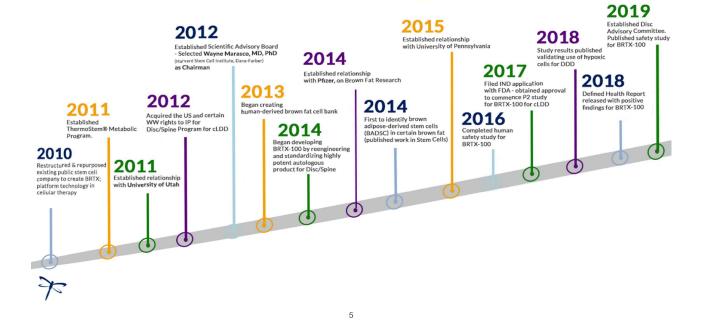
### Who is BRTX?

- BioRestorative Therapies, Inc. ("BRTX") was founded by a team of scientists and researchers committed to developing stem cell therapies to address upmet medical needs
- We believe that our advances in cell biology harbor great promise in conditioning our bodies' own regenerative potential to treat major diseases more effectively than current interventions
- We are an FDA compliant drug development company pursuing a biologics license application (BLA) pathway for our lead product BRTX-100, a product formulated from autologous (or a person's own) mesenchymal stem cells designed to increase quality of life for those suffering from back pain caused by disc degeneration
- A company with a multi-product pipeline developing a clinical stage spinal disc program and engaging in research efforts to produce what we believe is a very promising allogeneic cell-based therapy targeted to treat obesity, type 2 diabetes and metabolic disorders using brown fat cells
- Our mission is to continue to develop programs that aim to revolutionize the quality of care for both (i) chronic back pain caused by disc degeneration, as well as (ii) metabolic disorders including obesity and diabetes, with an effort to better patient outcomes and improve lives



# Disruptive Platform Technology in Cellular Therapy Addressing Large Unmet Needs; Multi-Billion Dollar Market Opportunities Exploring Diverse Pipeline Opportunities within and outside of Spine and Obesity We Believe that Preliminary Data May Be Indicative of Positive Trial Outcomes Many Clinical & Regulatory Accomplishments Intellectual Property Protection Multiple Value Enhancing Inflection Points Experienced Management Team & Scientific Advisory Board Exploring Key Strategic Partnership Opportunities

### CORPORATE HISTORY & ACCOMPLISHMENTS



### CELL-BASED THERAPIES IN DIVERSIFIED MARKETS

# DISC/SPINE BRTX-100

- 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
  FDA authorized commencement of Phase 2 clinical trial
  Large growing market with few comparable autologous therapies

## **METABOLICS** THERMOSTEM®

- Cell-based therapy to target obesity, type 2 diabetes and other metabolic disorders Cell-based therapy to target obesity, type 2 diabetes and other metabolic disorders using brown adipose derived stem cells

  "Off the shelf" cell-based therapy
  Library of human adipose (fat) tissue and cells
  Initial proof of concept completed in small animal model featured in peer-reviewed publication
  Patent portfolio, issued patents in the U.S., Australia and Japan
  Large markets with multiple co-morbidities





### **DEFINED HEALTH REPORT**

In May 2018, Defined Health (a bio-consulting company) conducted a company sponsored blinded study with relevant key opinion leaders to provide an independent review of BRTX-100

### Key Findings Include:



- Stem-cell therapies have "great potential" to treat cLDD (and related therapeutic areas)
- KOLs had positive reactions to preclinical/clinical data and were "optimistic that the clinical data presented to date is likely to be mirrored in the future [trials]"
- The degree of durability observed in the retrospective analysis of 5 patients from Elabd 2016 study was seen by KOLs as encouraging and exactly the extent of high durability they expect and would like to see from an autologous stem cell therapy
- KOLs anticipate that, if approved, **BRTX-100** would be "integrated into the standard of care of eligible cLDD patients"



### SCIENTIFIC ADVISORY BOARD

### WAYNE MARASCO, MD, PhD

Chairman of SAB

Wayne Marasco, M.D., Ph.D. is a principal faculty member of Harvard Stem Cell Institute as well as a Professor in the Department of Cancer immunology & AIDS at the Dana-Farber Cancer Institute and a Professor of Medicine at Harvard Medical School.

### JASON LIPETZ, MD

Chairman of SAB Sub Committee -Disc Advisory Board

Dr. Lipetz is chief of Spine Medicine for the Northwell Health Spine Center and the founder of Long Island Spine Rehabilitation Medicine.

### HARVINDER SANDHU, MD

Member - Disc Advisory Board

Dr. Harvinder Sandhu is an orthopedic spine surgeon at the Hospital for Special Surgery, specializing in minimally invasive spine surgery, endoscopic spine surgery, microsurgery, computer-assisted surgery, and the study and use of spinal biologics.

### GERALD A. MALANGA, MD

Member - Disc Advisory Board

Dr. Malanga is the Founder and Partner of New Jersey Sports Medicine, LLC and New Jersey Regenerative Institute in Cedar Knolls, New Jersey and President of Interventional Orthopedic Foundation.

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### WAYNE OLAN, MD

Clinical Director of Regenerative Disc / Spine Program

Dr. Olan is a board-certified Interventional Neuroradiologist and the director of Endovascular and Minimally Invasive Neurosurgery in Washington, D.C. at The George Washington University Medical Center.

### CHRISTOPHER PLASTARAS, MD

Member - Disc Advisory Board

Dr. Plastaras is MossRehabs' Clinical Director of Musculoskeletal Spine & Sports Rehabilitation Medicine.

### JOY CAVAGNARO, PHD

Member

Dr. Joy Cavagnaro is currently the President and Founder of Access BlO, L.C., located in Boyce, Virginia, a company specializing in science-based regulatory strategies. Dr. Cavagnaro held positions with the FDA Center for Biologics Evaluation and Research (CBER), for a decade.

### NAIYER IMAM, MD, MSC

Member

Naiyer Imam, M.D. is serving as the Chairman and President of First Medicine, Inc, an International telemedicine corporation dedicated to virtual physician services and chronic disease management.

### DEVASTATION TO POPULATION AND ECONOMY

### IMPACT ON PUBLIC HEALTH & COST ASSOCIATED WITH NATIONAL OPIOID CRISIS

### Curbed National Life Expectancy (age 25-54)

- 99% of global consumption of hydrocodone occurs in the United States (4.6% of the world's population) and 83% for oxycodone <sup>1</sup>
- The US leads the world in per capita consumption, twice as much as second ranked Canada 1
- 30,000 Americans die from overdose annually 1.
- Enough prescribed in US in 2012 for every adult to have a bottle of pills. Pain (Musculoskeletal / Spine Prevails) : opioids heroin fentanyl / synthetics  $^1$

- 1. https://pdfs.semanticscholar.org/fb86/a560d0e6250d4bc2e553731d9dc0df6be644.pdf
  2. https://www.cdc.gov/dhdsp/data\_statistics/fact\_sheets/fs\_heart\_disease.htm
  3. https://www.fightcancer.org/sites/default/files/Costs/s/2007/s/20Cancer/s/20-%20Final%20Web.pdf
  4. https://care.diabetesjournals.org/content/diacare/earl/g/2018/03/20/dci18-0007.full.pdf
  5. https://www.thegoodbody.com/chronic-pain-statistics/

### **Healthcare Costs**

Total annual pain costs (healthcare / lost productivity) approximately \$600 Billion 5

Double annual cost of heart disease 2

Greater than combined cancer & diabetes 4

Leading causes of recurrent / persistent pain in US workforce<sup>5</sup>:

- Headache
- Back Pain
- Neck Pain

### LARGE AND GROWING MARKET OPPORTUNITY



250 MILLION<sup>1</sup>

American adult population



25 MILLION 1

American adults with chronic lower back pain prevalence



12 MILLION

American adults with diagnosed and treated disc degeneration



5.6 MILLION

Americans have pain caused by a protruding or injured disc



500,000 & 1 MILLION

Invasive Surgical Procedures per year



1. Trinity Partners Report, "Degenerative Disc Disease US Market Assessment (Phase I)," Feb. 2016, Slide 9 of report.

### STANDARD OF CARE: CLINICAL AND ECONOMIC PROBLEM

### **CONSERVATIVE TREATMENTS** OFTEN RECURRENT



ORAL MEDICATION TREATMENT \$1,000 - \$2,000 1,4



INJECTION TREATMENT \$8,000 3



PHYSICAL MEASURES \$20,000 2 Annually sessions x 2 sessions po

### **SURGICAL TREATMENTS** WITH RE-OP RATES OFTEN 10-20%



\$110,000 1,5



\$20,000 - \$50,000 2



DISC REPLACEMENT SURGERY \$80,000 - \$150,000 2

# THE **BRTX-100 DIFFERENCE**

A single treatment using BRTX-100 is justifiable based on the cost of alternatives

Compares favorably to conservative treatment costs, which persist for

Less expensive than the most common surgical procedures



https://www.debt.org/medical/hospital-surgery-costs/
Http://health.costhelper.com/degenerative-disc.html
https://www.mdsawe.com/plocedures/epidural-steroid-injection/d583f9c4
https://www.mdsawe.com/degenerative-disc.html
https://www.mdsawe.com/plocedures/epidural-steroid-injection/d583f9c4
https://www.mdsawe.com/plocedures/epid

### TRIAL DESIGN

FDA Cleared IND 17275: Phase 2 Randomized, Controlled Study Design in Patients with cLDD

### Study Design and Patient Population

- Study includes 99 subjects (randomized 2:1 BRTX-100 to placebo)
- 40,000,000 cells/dose
- Included subjects will have only one symptomatic diseased disc
- Primary efficacy endpoint at 12 months, F/U at 24 months
  - Improvement in function: at least 30% increase in function based on Oswestry Disability Index questionnaires (ODI)
  - Reduction of pain: at least 30% decrease in pain as measured using a Visual Analogue Scale (VAS)
- 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

### **Primary Endpoints:**

ODI at Week 52

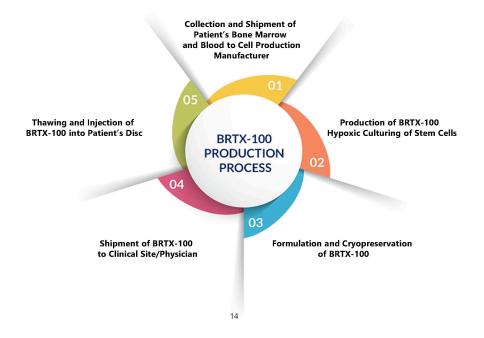
Primary Outcome Measure: Safety
Efficacy Endpoint: The efficacy endpoint is clinical
response, defined as at least a 30% decrease in pain as measured on
the VAS scale and at least a 30% increase in function based on the

### Secondary Efficacy Endpoint:

- Clinical response at 12 months
- Changes from baseline in pain as assessed with the (VAS) score and function (ODI) at Weeks: 2, 12, 26, 52, 104
- Changes from Baseline in function as assessed with the ODI at Weeks 2, 12, 26, 52, 104
- Changes from Baseline in function as assessed by Roland Morris Disability Questionnaire (RMDQ) at Weeks: 26, 52, 104
- Changes from Baseline function as assessed by Functional Rating Index (FRI) at Weeks: 12, 52, 104
- Changes from Baseline Quality of Life assessment at (SF-12 questionnaire) scores at Weeks: 2, 12, 26, 52, 104



### **BRTX-100 PRODUCTION PROCESS**





### 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



- Description: 33 patients diagnosed with degenerative disc disease received an intradiscal injection of autologous, hypoxic
  cultured, bone marrow-derived MSCs (15.1 to 51.6 million cells) as part of a US based investigator initiated study.
   Prospective registry data was obtained at multiple time intervals up to 6 years post-treatment.
- Results: Study results on the use of hypoxic cultured autologous MSCs demonstrated no safety issues, substantially reduced
  pain, increased function, and reduced disc bulge size. Pain change score relative to baseline were significant at 3, 36, 48, 60
  and 72 months post-treatment. Single assessment numeric evaluation ratings showed improvement of 60% at 3 years posttreatment. Functional rating index post-treatment change scores exceeded the minimally clinically important difference.
   85% of the patients (n=20) who underwent post-treatment MRIs had a 25% reduction in disc bulge size.



Dakt C. Norlegs, MD, PRD, <sup>1</sup> Francisco Ardura, MD, PRD, <sup>1</sup> Rubin Hernánder-Ramijo, MD, il Mg.ud Angil Martin-Ferrero, MD, PRD, <sup>1</sup> Israel Sanchez-Lie, MD, <sup>2</sup> Boya Torbo, MD, Mercoder Aberro, PRD, <sup>2</sup> Hechica Garcia, PRD, <sup>2</sup> José M, Mosieda, MD, PRD, <sup>3</sup> Ana Sanchez, MD, PRD, <sup>3</sup> and Jane Garcia Sanches, MD, PRD, <sup>3</sup>

- Description: 24 patients with chronic back pain were randomized into either treatment group or control group. Treatment group received 25x10<sup>6</sup> bone marrow-derived MSCs. Clinical outcomes were followed up for 1 year and included evaluation of pain, disability and quality of life.
- Results: Feasibility and safety of a 25x10<sup>6</sup> cell dose was confirmed and clinical efficacy was identified. MSC-treated patients
  displayed a quick and significant improvement in algo-functional indices versus controls. VAS and ODI were significantly
  reduced at 3 months after MSC transplantation and the improvement maintained at 6 and 12 months. Degeneration,
  quantified by Pfirmann grading, improved in the MSC-treated patients and worsened in the control group.

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

remark Kuruer , Colondor nar , Curri Johng Cer , Sun Heer Park , Belling Hybri Jerem , German Heer , Groups Tare Kimer , Alexander E. Bipoper<sup>2</sup>, Sell Sohn<sup>2</sup>, Chung-Hun Kim<sup>2</sup>, Devang Kashyap Thailor<sup>2</sup>, Joo-Hong Lee<sup>177</sup> and In-Bo Han<sup>2</sup>

- Description: 10 patients with chronic back pain received a single injection of 20x10<sup>6</sup> and 40x10<sup>6</sup> of autologous adiposederived MSCs. Safety and clinical outcomes were evaluated by assessing VAS, ODI, Short Form-36 (SF-36), and imaging at regular intervals over 1 year.
- Results: No serious or adverse events were reported during the 1-year follow up period. VAS, ODI, and SF-36 scores significantly improved in both dosing cohorts compared to base line. In addition three patients of the ten included in the study were determined to have increased water content based on an increased diffusion coefficient on diffusion MRI.





### **₹meso**blast

Product & Description	BRTX-100 adult stem cell biologic, administered via anticipated 30-minute in-office intradiscal injection	MPC-06-ID: adult stem cell biologic, administered via 30-minute outpatient intradiscal injection
KEY ATTRIBUTES	Hypoxic cultured – in low oxygen environment (5%)	Normoxic cultured – with norma oxygen environment (~20%)
	Autologous – uses patients own stem cells	Allogeneic – uses human deriver stem cells (not from patient)
	Autologous Platelet Lysate Carrier	Hyaluronic Acid Carrier
	100% Animal-Free Manufacturing Process	Animal Products Used in Manufacturing Process
STAGE OF DEVELOPMENT	Phase 2 clinical trial approved under active IND 17275	Phase 3 clinical trial currently enrolling participants

# 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





# THERMOSTEM PROGRAM

- "Off the shelf" allogeneic cell-based therapy targeted to treat obesity, Type 2 diabetes and metabolic disorders using brown fat stem cells
- Brown fat has been shown to regulate metabolic homeostasis in the body
   Large library of human brown adipose tissue (BAT),
- Large library of human brown adipose tissue (BAT), white adipose tissue (WAT) and brown adipose-derived stem cells (BADSC)
- Initial proof of concept completed in small animal model
- Related BAT patent portfolio, including issued patents in the U.S., Australia and Japan
- Platform program for the development of cell and small molecule therapies



### INTELLECTUAL PROPERTY



- Methods and Compositions to facilitate repair of avascular tissue
   Surgical Methods and Compositions to facilitate repair of avascular tissue
   Therapeutic Delivery Device

### # OF APPLICATIONS

- 3 PENDING 1 GRANTED



# PROGRAM: METABOLIC

### **PATENT TITLES**

- 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

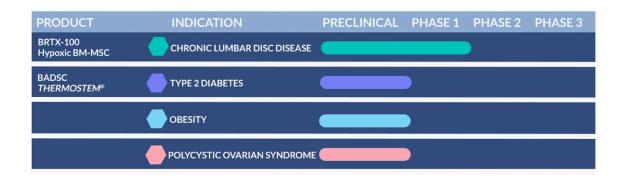
### # OF APPLICATIONS

• 15

- 11 PENDING
- 4 GRANTED



## RESEARCH & DEVELOPMENT





### **LEADERSHIP**



### MARK WEINREB CEO & PRESIDENT

Mark Weirreb has served as CEO of the Company since October 2010 and has significant experience in running public companies. He previously served as the Chief Executive Officer and Chairman of the Board of Directors of Phase III Medical, Inc., where he or chestrated the acquisition of an adult stem cell collection company that became NeoStem, Inc. (now Caldridus Biociacience, Inc., — NASOAC, CES), a public international biopharmasecutical company engaged in, among other things, adult stem cell collection of the Company of the



## **LANCE ALSTODT EVP & CHIEF STRATEGY OFFICER**

Lance Astod t joined BioRestorative Therapies as its Executive Vice President And Incident Strategy Officer in October 2018. Mr. Alstodt is responsible for developing and refining the Company's overall strategy and implementing investment decisions. Mr. Alstodt brings over 25 years of expensivence in operations, strategy and mergers & acquisitions. Mr. Alstodt was the Founder and CEO of Med'vest Consulting Corporation ("Med'vest"), an advisory and capital firm founder exclusively within the healthcare sector, focusing on growth and channel strategy, strategy clarating, emerger and acquisitions support and investor strategy strategy clarating, emerger and acquisitions proport and investor investment banker with over 25 years of experience in healthcare investment lanking, including mergers and acquisitions. In 2011, Mr. Alstodt brings ingrificant domain experience within the orthopedic and spine specific sectors. From 2008-2011. Mr. Alstodt was a Managing Director to the lead of Medical Technology at Oppenheimer & Co. From 2000-2008, he was a Managing Director in the Healthcare Group and Global M&A Group at Bank of Americal Technology at Oppenheimer & Co. From 2000-2008, he was a Managing Director in the Healthcare Group and Global M&A Group at Sank of America Merril Lynch ("EAML"). Prior to BAMI, Mr. Alstodt spines serve years in the Global M&A Group at 12P. Morgan Chase, where he worked actersively on acquisitions, leaves appeal buyouts, private and public financings, exclusive sales accordancy concentration in Finance and Marketing.



### FRANCISCO SILVA CHIEF SCIENTIST & VP, R&D

Francisco Silva joined BRT in April 2011 and is Vice President of Research and Development. Mr. Silva is responsible for all laboratory operations and is involved in the development and growth of our stem cell programs. Mr. Silva previously commercial programs are silvated to the stem of the silvate previously commercial facilities on Francisco Silvate President of Research and Development for PrimeGen Biotech ILC, a company reagogal in the development of cell-based platforms. He was responsible for the development of experimental designs that focused on germ line reprogramming stem cell platforms. Mr. Silva patents: he has obtained a number of patents relating to stem cells and has had numerous articles published with regard to Mr. Silva graduated from California State Polytechnic University with a degree in Biology.

Mr. Silva graduated from California State Polytechnic University with a degree in Biology.



### **BOARD OF DIRECTORS**

### A. JEFFREY RADOV

Director

Mr. Radov is an entrepreneur and businessman with 35 years of experience in media, communications and financial endeavors. He was a founding executive of About.Com, Inc., an online information source, and was its EVP of Business Development and Chief Financial Officer from its inception. Previously, Mr. Radov was the Director of Finance at Rainbow Programming Enterprises, a joint venture among Cablevision Systems Corporation, Cox Broadcasting and Daniels & Associates, Prior to that, he was Director of Marketing at Winklevoss & Associates.

### PAUL JUDE TONNA

Director

Mr. Tonna serves as Molloy College's Executive Director for The Energeia Partnership, a leadership academy dedicated to identifying and addressing the serious, complex and multi-dimensional issues challenging the Long Island, New York region. He is Managing Partner of Praxis Public Relations, Inc., a business consulting and government relations company. Mr. Tonna served from 1994 to 2005 as a Suffolk County Legislator and for three years, his fellow legislators chose him to lead the Suffolk County Legislator and suffered as the Presiding Officer.

### CHARLES RYAN, JD, PHD

Director

Dr. Ryan is an experienced executive with an extensive background in pharmaceuticals and biotechnology, including strategic planning, IP, and research and business development. He is presently the CEO of Neurotrope Bioscience, Inc. Previously, Dr. Ryan was the CEO of Orthobond, Inc. and sevend as the Vice President, General Counsel for Cold Spring Harbor Laboratory. Prior to this, he spent over a decade at Forest Laboratories as its Senior Vice President & Chief Intellectual Property Counsel.

### JOHN DESMARAIS, JD

Director

John Desmarais is the founding partner of Desmarais LLP, an Intellectual Property trial boutique that specializes in jury trials and alternative fee structures. After practicing in the area of intellectual property litigation and counseling for several years at fish & Neave, in 1992, he left private practice to serve as an Assistant United States Attorney. After leaving the government, Mr. Desmarais returned to Fish & Neave. In 1997, he joined the New York office of Kirkland & Ellis as a partner. In 2010, Mr. Desmarais left to found Desmarais LLP.

### ROBERT CATELL

Director

Robert B. Catell is an accomplished global energy industry leader and is the recipient of the 2009 United States Energy Award. Mr. Catell logan his career at Brooklyn Union Gas, a small regional gas distribution utility that he built into one of the largest electric power/natural gas companies in the United States. He also orchestrated the merger of KeySpan Energy with National Grid, a strategic move to foster the growth of a world-scale energy company. Following National Grid's acquisition of KeySpan Corporation, Mr. Catell became Chairman of National Grid, U.S. and Deputy Chairman of National Grid ple.



# Disruptive Platform Technology in Cellular Therapy Addressing Large Unmet Needs; Multi-Billion Dollar Market Opportunities Exploring Diverse Pipeline Opportunities within and outside of Spine and Obesity We Believe that Preliminary Data May Be Indicative of Positive Trial Outcomes Many Clinical & Regulatory Accomplishments Intellectual Property Protection Multiple Value Enhancing Inflection Points Experienced Management Team & Scientific Advisory Board Exploring Key Strategic Partnership Opportunities

